DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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REPORT OF A SURVEY OF THE STATE INSTITUTIONS OF HIGHER LEARNING IN KANSAS

MADE BY A COMMISSION COMPOSED OF
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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, June 8, 1923.

SIR: In recent years it has become clear that one of the most valuable and direct services which the Bureau of Education can render to the several States is to respond to invitations to conduct educational surveys. Through the medium of these surveys the State authorities are able to secure unprejudiced and sympathetic study of educational conditions, together with suggestions and recommendations for improvement.

In accordance with this policy the Bureau of Education accepted an invitation from the State board of administration in Kansas to make a survey of the higher educational institutions under its control. The survey was carried out by a commission under the direction of Dr. George F. Zook, the bureau's specialist in higher education.

In the field of higher education particularly there has of late years been an increasing demand for studies of this nature. In each of these surveys the bureau finds problems awaiting solution which exist in other States. For this reason it seems appropriate that the bureau should from time to time publish the results of surveys which are known to have a bearing on similar situations in other States. Inasmuch as the report of the commission which made a survey of the Kansas State institutions of higher education deals with a number of subjects of considerable interest to other States, it is believed that the full report should be made available for distribution generally to the universities and colleges of the country. I recommend, therefore, that it be published as a bulletin of the Bureau of Education.

Respectfully submitted.

JOHN J. TIGERT, *Commissioner.*

The SECRETARY OF THE INTERIOR.

LETTER TO THE STATE BOARD OF ADMINISTRATION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, November 25, 1922.

Hon. HARVEY J. PENNEY,
Board of Administration, Topeka, Kans.

DEAR SIR: In accordance with the arrangements entered into by the Bureau of Education with your board, I have caused a survey to be made of the five State institutions of higher learning in Kansas. The survey commission has completed its report, which fully meets my approval. I am, therefore, submitting it herewith to your board.

The report shows clearly that the basis of the higher institutions in the State is fundamentally sound. The number of instances of undesirable duplication of work between and among the higher institutions is unusually small. On the other hand, the commission has made a number of recommendations concerning the conduct of the institutions which I trust will enable them to develop into that position of leadership in higher education toward which the State should strive.

In submitting this report I wish to convey to you, and through you to the officers and faculties of the higher institutions, the thanks of the bureau for the cordial cooperation which the commission at all times received from your board and the institutions. I desire also to express to President Coffman, Dean Mann, and Mr. Christensen my deep appreciation of the invaluable services which they have rendered the bureau in helping to make the survey.

Yours very sincerely,

JOHN J. TIGERT, *Commissioner.*

INTRODUCTION.

Under date of September 20, 1921, Mr. H. J. Penney, representing the Kansas State Board of Administration, in a letter to the United States Commissioner of Education stated that it was the desire of the board to have a comprehensive survey made of the five State institutions of higher learning in Kansas, and requested information concerning the terms under which the Bureau of Education would be willing to conduct such a survey. In response to this request, a statement containing these conditions, together with some recommendations as to the manner of conducting the survey, was sent to the board. On December 23, 1921, the board accepted these conditions and recommendations. Subsequently Dr. W. T. Bawden, Assistant to the Commissioner of Educatien, held a conference with the board of administration in Topeka, Kans.

According to the plans agreed upon by correspondence and conference, the Commissioner of Education appointed the following members of the survey commission, who were approved by the board of administration, February 17, 1922: Dr. George F. Zook, specialist in higher education, United States Bureau of Education, as director of the survey; Dr. Lotus D. Coffman, president of the University of Minnesota; and Dean A. R. Mann, of the College of Agriculture, Cornell University. The commission also had the assistance of Mr. J. C. Christensen, assistant secretary and purchasing agent of the University of Michigan, who made the study of the financial and purchasing organization of the board of administration so far as it relates to the higher institutions of learning. By agreement with the board of administration, Dean E. P. Lyon, of the University of Minnesota, made an independent study of the medical school of the University of Kansas. For the convenience of the board, Dean Lyon's report is appended to the report made by the survey commission, which, with the exception of certain generalizations on the value of medical education in Kansas, confined its attention and recommendations to the remainder of the higher educational situation in Kansas.

The expenses of the survey were borne by the five higher institutions according to the time necessary for the consideration of the problems relating to each institution. It was agreed with the board that this proportion should be as follows: University of Kansas, 27.5 per cent; Kansas State Agricultural College, 27.5 per cent; Kansas

State Normal School, 17.5 per cent; State Manual Training Normal School, 17.5 per cent; Fort Hays State Normal School, 10 per cent. The budget was placed at $4,500, but it proved unnecessary to spend the full amount.

Dr. George F. Zook, the director of the survey, spent the period from April 3 to June 20 in Kansas. President Coffman was in the State during the two weeks beginning with April 10. Dean Mann spent nearly three weeks in the field work, beginning April 1. Mr. Christensen was in Kansas for about six weeks.

All the members of the survey staff spent some time at each of the five higher institutions. In order to obtain accurate and adequate information, Doctor Zook and Mr. Christensen made several visits to each institution.

At the conclusion of President Coffman's and Dean Mann's field work the survey commission agreed upon a number of tentative conclusions, which, together with subsequent suggestions through correspondence, were embodied in a tentative draft of a report. This report was considered at length by all the members of the survey staff at a conference held in Indianapolis, Ind., June 22 and 23. At that time there were suggested certain modifications, changes, and additions which have been embodied in the present report. The report, including a number of recommendations, has been adopted unanimously by the commission. The statements of facts contained in the report have been confirmed by officials at the several institutions, although, of course, they are in no way responsible for the conclusions which have been reached.

The survey commission was very much gratified at the cordial spirit of cooperation shown by all the officials and members of the faculty at the several higher institutions. The commission takes this opportunity to thank these persons for their invaluable assistance, which was always freely and gladly given. It also wishes to express to the State board of administration its deep appreciation of the fine spirit exhibited by all the members in their ardent desire to cooperate in every move for the betterment of higher education in Kansas. In submitting this report, including certain recommendations, the commission has endeavored to present a constructive program which will assist the State of Kansas to go forward to greater and greater accomplishments in higher education.

REPORT OF A SURVEY OF THE STATE INSTITUTIONS OF HIGHER LEARNING IN KANSAS.

Chapter I.

GENERAL BACKGROUND.

THE PEOPLE AND THEIR INDUSTRIES.

Kansas is one of the greatest rural States in the Union. According to the census of 1920, of its population of 1,769,257, 65.1 per cent live in rural districts or in villages of 2,500 inhabitants or less. Of the land area of the State 86.8 per cent is in farms, of which over two-thirds is reported as improved. On these farms are grown more wheat and alfalfa than in any other State in the Union, while only five or six States exceed Kansas in the acreage of corn. Hay, oats, kafir, barley, and potatoes are also important crops; while horses, mules, cattle, swine, and poultry are of primary importance as livestock. Dairy and poultry products are also of considerable value. There are in the State 156,286 farms, with a total of 45,425,179 acres, nearly 58 per cent of which is cultivated by owners. The total value of all farm property is given as $3,302,806,187.

Notwithstanding the predominance of farm life in Kansas, other occupations, including transportation and manufacturing, occupy important places in the economic life of the State. The capital invested in manufacturing amounted in 1919 to $357,000,000, while the total value of manufactured products, including the cost of raw materials, reached $913,000,000, an amount exceeding the value of the agricultural products by over $200,000,000. In the southeastern part of the State coal mining is important, while oil and gas in large quantities are found in the south central region.

During the last three decades the increase in population in Kansas has not kept pace with the rest of the country. From 1890 to 1900 the increase in population was only 3 per cent; from 1900 to 1910, 15 per cent; and from 1910 to 1920, 4.6 per cent. In 1920 the population was 1,769,257, as against 1,428,108 in 1890, or a net increase of only 341,149, or 22.5 per cent in 30 years. In general this slow growth in population has been due to the fact that the State contains no large cities, which, as is well known, have in recent years absorbed much of the increase in population.

The lack of large cities also explains the fact that the population is particularly homogeneous in character. Of the population 96.6 per cent is white; 3 3 per cent colored; 1 per cent Indian; and an insignificant number of people represent other races. Of the total population, only 110,578, or 6.25 per cent are foreign born, and these are distributed very well over the State. There is not a county in the State where the foreign-born population runs as high as 15 per cent. Such foreign-born whites as are found in the State come principally from Germany, Mexico, Russia, and Sweden.

ELEMENTARY AND SECONDARY EDUCATION IN KANSAS.

In the State constitution of 1859 provision was made for a State superintendent of public instruction, elected by the voters every two years, who "shall have the general supervision of the common-school funds and educational interests of the State." Acts of the State legislature later authorized the State superintendent to apportion to each county the income from these funds, together with the annual taxes collected by the State; to compile educational statistics; and to serve as the ex officio chairman of the State board of education, which is composed of the following additional members: The chancellor of the State university, the president of the State agricultural college, the presidents of the three State normal schools, and three county or city superintendents appointed by the governor.

The State board of education is authorized to prescribe the courses of study for the public schools of the State, including district schools, graded schools, and high schools; to define standards for them; and to accredit them in accordance with these standards. It also issues State teachers' certificates in accordance with regulations which it has established, including certificates to graduates of colleges which meet certain standards adopted by the board. The board of education has also been designated by State law to cooperate with the Federal Board for Vocational Education in the administration of the Smith-Hughes law.

The schools in each county of the State are under the general supervision of a county superintendent of public instruction, who apportions school funds, inspects schools, holds teachers' institutes, and keeps educational records of the schools in his county. In effect this statement applies only to the rural communities and small villages, inasmuch as all cities of 2,000 or over are under the jurisdiction of local boards of education.

According to the United States census report for 1920, there were in Kansas 255,474 children 7 to 13 years of age, of whom 241,531, or 94.5 per cent were in school. The same report showed only 22,821 persons 10 years of age and over in the State who were unable to write. Of this number nearly one-half were persons of foreign birth,

and 4,228 were negroes. Few States in the Union have as high a percentage of literacy as Kansas.

According to reports received by the Bureau of Education from the State superintendent of public instruction, the total enrollment in the elementary schools for 1919-20 was 367,490.

The fact that such a large number and proportion of the children of the State are enrolled in the elementary schools is a testimony of the strong passion which the people of Kansas have for education. It accounts, furthermore, in part for the desire on the part of the citizens to improve the condition of elementary schools, particularly those in rural communities. With better elementary school facilities, including the consolidation of rural schools, there would be laid yet a better basis for effective work in the secondary schools, without which it is impossible to expect extensive development of higher education.

Notwithstanding the drawbacks which face the elementary school system in Kansas, according to the Bureau of Education statistics for 1919-20, Kansas ranks fifth in the Union in the proportion of population 14 to 18 years of age attending secondary schools. It is exceeded only by California, Nevada, Washington, and Oregon. The percentage of this age group in these five States enrolled in secondary schools was, California, 86.6; Nevada, 53.3; Washington, 50.6; Oregon, 49.9; Kansas, 43.2. Kentucky and Mississippi bring up the rear with 11.9 and 13.4, respectively. The average for the country is 28.4. (Table No. 1.)

Other statistics show that Kansas ranks sixth among the States in the proportion of the total number of school pupils who are enrolled in the high schools. (Table No. 2.)

Figures compiled by the State superintendent of public instruction covering the period fron 1900-1901, to 1919-20, show that high-school attendance in Kansas increased from 16,479 in 1900-1901, to 60,110, in 1919-20. (Table No. 3.)

RESIDENCE OF STUDENTS IN THE HIGHER INSTITUTIONS.

A short time ago the United States Bureau of Education made an exhaustive study of the residence of students in the higher institutions, including both publicly and privately controlled institutions. The results of this study showed that there were during the year 1920-21 the following number of people in each State to each college student resident in the State: (1) Oregon, 112; (2) Iowa, 128; (3) Utah, 137; (4) Kansas, 151; (5) Nebraska, 151; (6) Washington, 155. In other words, Kansas ties with Nebraska, for the honor of being fourth in the Union. Arkansas and Tennessee bring up the rear with

566 and 604 people, respectively, to each college student. (Table No. 4.)

An examination was then made to see what proportion of college and university students attended higher institutions located within their respective home States. This table is valuable as indicating the drawing power of the institutions on their own students. In this respect Kansas ranks ninth in the Union, being exceeded by California, Oregon, Utah, Michigan, Nebraska, New York, Minnesota, and Ohio. Of Kansas students 79,2 per cent remain in their home State for their college education. The average for the country is 74.3 per cent.

The total number of Kansas college and university students who are in higher institutions is 11,786. Of this number, 2,451 go to institutions located in other States. To replace these students, only 1,159 students from other States come to Kansas for their education. In other words, Kansas higher institutions are taking care of 1,292 fewer college and university students than all its residents attending universities and colleges. Obviously the Kansas institutions do not have a drawing power on students outside of Kansas equal to that of the outside institutions on Kansas students. In this connection it would seem as if Kansas ought to look forward to providing higher educational opportunities of sufficient quality and variety to draw into its institutions as many students if not more than it has students to educate. In this way it would become known as an educational center which draws more students than it sends out. The following are the most important States which have this distinction: Oregon, California, New York, Illinois, New Hampshire, Massachusetts, Missouri, Michigan, Wisconsin, Pennsylvania, Virginia, and Maryland.

Reference to the statistical tables shows that Kansas sends 134 students to California, and receives 16 from there; 310 to Colorado, and receives 70; 538 to Illinois, and receives 39; Iowa, 68, and receives 40; Massachusetts, 59, and receives 4; Michigan, 53, and receives 5; Mississippi, none, and receives 273; Missouri, 483, and receives 191; Nebraska, 202, and receives 47; New York, 93, and receives 8; Ohio, 47, and receives 6; Oklahoma, 101, and receives 211; Pennsylvania, 45, and receives 2; Texas, 9, and receives 63; and Wisconsin, 45, and receives 4.

BRIEF HISTORY OF THE ESTABLISHMENT OF THE HIGHER INSTITUTIONS.

In the constitution of Kansas of 1859 there is a section which states:

> The legislature shall encourage the promotion of intellectual, moral, scientific, and agricultural improvement by establishing a uniform system of common schools and schools of higher grade, embracing normal, preparatory, collegiate, and university departments.

A later section in the same document also states:

Provision shall be made by law for the establishment, at some eligible and central point, of a State university, for the promotion of literature and the arts and sciences, including a normal and an agricultural department. All funds arising from the sale or rents of lands granted by the United States to the State for the support of a State university, and all other grants, donations, or bequests, either by the State or by individuals, for such purpose, shall remain a perpetual fund, to be called the "University fund"; the interest of which shall be appropriated to the support of the State university.

Simultaneously with the admission of Kansas into the Union, January 29, 1861, Congress set aside 72 sections of land for the support in Kansas of a State university. Two years later the legislature located the university at Lawrence. In 1864 the university was organized, with a board of regents appointed by the governor. North College, the original building, was erected by private subscription in 1866, and in the fall of that year instruction began. The following chronological table gives the important changes in university administration, together with the dates when the respective buildings on the campus were erected.

CHRONOLOGICAL TABLE.

1859—State university provided for as at present, in Wyandotte constitution, now the constitution of the State of Kansas.
1861—Congress set apart and reserved for the use and support of a State university 72 sections of land.
1863—Lawrence selected as location for the University of Kansas.
1864—The university organized by the legislature.
1865—March 21, first meeting of the board of regents.
1866—July 19, regents elected the first faculty of the university, consisting of Elial Jay Rice, A. M., David Hamilton Robinson, A. M., and Francis Huntington Snow, A. M.
North College erected.
September 12, first session of the university opened at North College.
1870—Department of engineering organized.
1872—Fraser Hall erected and occupied.
1876—Normal department established.
1877—Department of music organized.
1878—Department of law organized.
1883—Medical Hall (old chemistry building) erected.
1885—Department of pharmacy established.
Normal department discontinued.
1886—Snow Hall erected.
1891—The university reorganized; the preparatory department discontinued and the schools of arts, engineering, law, fine arts, and pharmacy established.
1894—Spooner Library erected.
Chancellor's residence erected.
1895—Blake Hall erected.
1896—The graduate school established.
1899—The Fowler shops erected.
The school of medicine established.
1900—Chemistry and pharmacy building erected.

1902—Dyche Museum of Natural History erected.
1903—Summer session established.
1904—The name of the school of arts changed to the College of Liberal Arts and Sciences.
Green Hall erected.
1905—Full four-year course in medicine established.
Eleanor Taylor Bell Memorial Hospital erected.
1906—Robinson auditorium-gymnasium erected.
Clinical laboratory erected.
Nurses' training school established.
1907—Marvin Hall erected.
1908—Haworth Hall erected.
Power plant and laboratories erected.
1909—The school of education established.
The division of university extension established.
1911—First wing of administration building erected.
State hospital erected at Rosedale.
Clay-working laboratory erected.
1915—Dispensary at Rosedale erected.
Oread training school building erected.
1916—Vivarium erected.
1918—West wing and portion of central section administration building erected.
1919—Observatory erected.
Reserve Officers' Training Corps established.
1921—University commons erected.
Power plant erected.
First one-half of stadium erected.
1922—Electrical laboratory building erected.
New Bell Memorial Hospital erected.

The Kansas State Agricultural College had its inception in the Federal Morrill Act of July 2, 1862. To each State the Federal Government donated 30,000 acres of public lands for each Senator and Representative to which the State was entitled, according to the apportionment made on the basis of the census of 1860. The conditions were that the money arising from the sale of these lands—

shall constitute a perpetual fund, the capital of which shall be inviolably appropriated by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

On February 3, 1863, the Kansas Legislature passed a joint resolution accepting the provision of the Morrill Act. In the same month the governor signed an act locating the college at Manhattan, on condition that the property belonging to the so-called Bluemont Central College Association, which had founded a small classical college at Manhattan in 1859, should be ceded to the State for the use of the new agricultural college. Subsequent Federal legislation, the second

Morrill Act in 1890, began annual Federal appropriations to each of the States and Territories for additional financial support of the land-grant colleges. These annual appropriations increased from $15,000 in 1890 to $25,000 ten years later. In 1907 the Nelson Act increased these Federal appropriations to each of the States until in 1912 they reached $50,000 annually.

In 1887 the United States Congress, by the passage of the so-called Hatch Act, began the appropriation of $15,000 per annum to the States for the establishment of agricultural experiment stations in connection with the land-grant colleges. The Adams Act in 1906 provided for the gradual increase of this amount until it reached $30,000 each year.

The Smith-Lever Act of 1914 provided annual Federal appropriations to each State in the Union for carrying on extension work in agriculture and home economics by the land-grant colleges on condition that the State appropriate for the same purpose sums of money which are practically equal to the Federal appropriation. Through the operation of this law the State agricultural college in 1920–21 received from the Federal Government $123,041.66.

The main events in the history of the college are given in the following chronological table:

CHRONOLOGICAL TABLE.

1863—Provisions of Morrill Act accepted by the Legislature of Kansas.
Bluemont Central College accepted by the State and made the Kansas State Agricultural College. College opened September 1, 1863.
1871—Farm of 155 acres purchased with funds obtained by sale of bonds voted by Manhattan Township. Now the campus upon which most of the buildings are located.
Veterinary instruction introduced. Discontinued 1874.
1872—Instruction in carpentry and blacksmithing first given.
1873—Appropriation "to improve and stock the State farm and develop the agricultural department, $15,000." "For completion of the college barn, $8,000."
First building erected on present campus, designed as one wing of a stone barn.
Instruction in "sewing, dressmaking, and millinery" begun.
1874—Three six-year curricula formulated, farmer's, mechanic's, and woman's. Classical languages eliminated and vocational subjects increased.
1875—The Industrialist first issued. Published as the organ of the college uninterruptedly since.
First stone barn remodeled for use in college instruction.
College instruction transferred for the most part to the new campus.
Center section of present shop for woodworking erected.
1876—First chemical laboratory erected.
First horticultural hall erected.
1877—Four-year curriculum adopted for all students, with certain variations adapted to the respective needs of young men and young women.
1878—First wing of Anderson Hall, main college building, erected.
1883—Central part of main college building erected.

1885—South wing of main college building erected.
1887—The Legislature of Kansas accepted the provisions of the Hatch Act.
Central section of Anderson Hall enlarged.
1888—Building erected for the experiment station.
Veterinary instruction reintroduced.
1890—The second Morrill Act signed by the President.
1894—Fairchild Hall erected; enlarged in 1904.
Steam plant erected for heat and power, $14,000.
Two-week short course for farmers introduced. Abandoned three years later.
1897—Curriculum differentiated in the senior year to meet more fully the needs of "farmers," "mechanics," and "women."
Kedzie Hall erected for home economics.
1898—Three four-year curricula put into effect—agriculture, engineering, and general.
Four-year curriculum in household economics added.
1899—The four-year curricula revised and named agriculture, domestic science, general science, and mechanical engineering. Also an electrical engineering curriculum was offered.
Dairy barn built.
1900—Farmers' short course covering two winter terms of 12 weeks each first offered
Old Agricultural Hall erected.
Chemical laboratory burned May 31.
Short course in domestic science first offered.
1901—Fort Hays military reservation accepted by the State of Kansas.
Rebuilding chemical laboratory for a gymnasium.
1902—Denison Hall erected.
1903—Addition to Fairchild Hall.
Water plant provided.
1904—Additional land purchased.
Auditorium provided.
Creamery building provided.
1905—Four-year curriculum in architecture offered.
Four-year curriculum in veterinary medicine first offered.
1906—Adams Act passed by Congress.
Garden City branch experiment station established.
1907—Horticultural Hall erected.
Plant museum greenhouse erected.
1908—Agricultural curriculum differentiated at beginning of junior year, creating from that point curricula in agronomy, animal husbandry, poultry husbandry, and horticulture and forestry curricula.
Four-year curriculum in printing offered.
Four-year curriculum in civil engineering offered.
Home Economics Hall erected.
1909—Engineering building and addition to shops erected.
1910—Greenhouse erected.
Land purchased for agronomy farm.
Dairy herd and building provided.
The four-year curriculum in poultry husbandry dropped.
Entrance requirements fixed at 8 units.
1911—Tribune branch experiment station established.
Four-year curriculum in industrial journalism established.
Summer session established.
Nichols Gymnasium erected.
Athletic field provided.

1912—Erection of east wing of Waters Hall and stock-judging pavilion adjacent.
Entrance requirements raised to 15 units of high-school work.
Establishment of the school of agriculture, in which three-year secondary courses are offered in agriculture, mechanic arts, and home economics.
1913—Colby branch experiment and demonstration station established.
Lakin branch experiment station established.
The four-year curriculum in printing abandoned.
1914—Congress passed Smith-Lever Act.
Four-year curriculum in agricultural engineering offered.
1916—Three-year curriculum in applied music offered.
1917—Four-year curriculum in flour mill engineering offered.
1918—Several tracts of land purchased, aggregating 396.4 acres.
Two-year curriculum in public school music offered.
Six wooden buildings erected for housing of detachments of the Army and for the S. A. T. C. Now used for mess hall, repair shop, traction engine laboratories, agricultural experiment station work, and other purposes.
1919—Four-year curricula in agricultural chemistry, biological chemistry, and industrial chemistry offered.
1920—Four-year curriculum in music offered.
1921—Central portion of engineering hall erected.
Pasture land, 247.4 acres, purchased.
Four-year curriculum in rural commerce offered.
1922—Erection of cafeteria building.

By an act of the legislature in February, 1863, a State normal school was located at Emporia. In the following year another legislative act authorized the governor to appoint a board of directors, who were to organize and govern the institution. In February, 1865, the school was opened in temporary quarters, with one teacher and 18 students.

The first building erected by the State for the normal school was dedicated early in 1867. Since that time other buildings have been constructed from time to time. The buildings on the campus at present are: Music Hall, Norton Science Hall, Kellogg Library, cafeteria, training school, gymnasium, power plant, emergency hospital, and Plumb Memorial Building, besides certain small buildings for miscellaneous purposes. There is a campus of 35 acres.

By an act of Congress dated March 28, 1900, the abandoned military reservation at Fort Hays, comprising 7,600 acres, was granted to the State of Kansas upon condition that the State agree to establish and maintain on this land (1) an experiment station of the State agricultural college, (2) a western branch of the State normal school, and (3) a public park. At the next State legislature an act was passed accepting the gift, with the conditions imposed in the Federal act and authorizing the regents of the agricultural college and normal school, respectively, to locate and establish on the land thus obtained an experiment station and "a branch or auxiliary of the State normal school." Rentals received from the lease of land assigned to the

branch normal school were to be used to equip and maintain the institution. The course of study, as at the present normal in Emporia, was not to extend over two years beyond the high school.

Owing to unforeseen difficulties school was not opened in the branch normal until June, 1902. For two years the old Fort Hospital served for classroom purposes. Since that time the following buildings have been erected: Woman's building, 1906; power plant; dairy and creamery; Academic Hall; Sheridan Coliseum, 1916. The school owns 4,000 acres, about 85 acres of which are used as a campus.

In 1903 the State legislature, responding to the demand of the southeastern part of the State for teacher-training facilities, established at Pittsburg an auxiliary or branch normal training school, likewise with a two-year course of study. Its buildings at present comprise Russ Hall (containing the library, training school, administrative offices, and recitation rooms); Carney Hall (home economics, biology, and physical sciences); industrial arts building; power and heating plant; cafeteria; and barracks now used for gymnasium and automobile machine shop.

During the period that the branch normal schools were under the authority of the Emporia board of regents the legislature authorized the board (1905) to extend the length of the teacher-training courses to not less than three years and to confer such degrees as they deemed proper. Notwithstanding this extension of their functions, neither the parent normal at Emporia nor the two branches at Fort Hays and Pittsburg were satisfied with the centralized method of control. Accordingly, when the first board of administration was created in 1913 to take over the control of all the State institutions of higher learning, it was provided in the law that the new board was to have power to separate any branch school from its parent school and to name a president and other administrative officers for each institution. Accordingly, one of the early acts of the new board of administration, May 5, 1913, was to make the normal school at Pittsburg an independent institution. It has since been known as the "State Manual Training Normal School."

A similar action with respect to the branch normal school at Fort Hays was delayed until there was secured from Congress an amendment to the act of 1900 which permitted the State to have the benefits of the previous land grant for the establishment of an independent normal school. Since that year, therefore, the institution has been recognized as entirely independent of the normal school at Emporia. It is now known as the "Fort Hays Kansas Normal School."

Chapter II.

THE STATE BOARD OF ADMINISTRATION.

BRIEF REVIEW OF THE ESTABLISHMENT OF THE BOARD.

In establishing institutions of higher learning it is necessary for the State through constitutional provision or legislative enactment to provide governing bodies who are responsible for the property of the institutions, the proper expenditure of the funds appropriated to or collected by them, the formulation of institutional policies, and the general administration of the institutions through the president and other officials whom they choose.

In Kansas, the university and the State agricultural college each had their respective boards of regents from the date of their establishment down to the year 1913. The university board was composed of six regents, with one honorary member; the agricultural college board consisted of seven members. A single board of regents composed of six regular members and three honorary members governed the normal school at Emporia and its two branches at Pittsburg and Fort Hays. In 1913 the State legislature abolished these three boards, together with the several boards having charge of the charitable, penal, and correctional institutions. In their places were erected three boards: (1) The State board of administration, to have charge of the university, the agricultural college, the three State normal schools, the school of mines at Weir, the school for the deaf at Olathe, and the school for the blind at Kansas City; (2) the State board of corrections, to have charge of the penal and correctional institutions; and (3) the State board of control, to have charge of the charitable and eleemosynary institutions. At the same time a central business office was arranged for the institutions under the control of the board of administration, and an attempt was made to cooperate with the other two State boards in the purchase of supplies and equipment.

After the educational, penal, correctional, and charitable institutions had been operated under these three respective boards for four years, the State legislature decided in 1917 to establish a single board of four paid members, including the governor, to have charge of all the State's institutions, with one or two unimportant exceptions. This board is known as the "State Board of Administration."

REVIEW OF LEGISLATION IN OTHER STATES.

In taking these steps toward the centralization of the government of the higher institutions into one board, the State of Kansas has by no means been unique, though it has undoubtedly been one of the pioneers in developing the movement in the direction of centralized control. In 1909 the State of West Virginia created a board of control to which was delegated full power to manage and govern all the penal, charitable, and correctional institutions, and to have charge of the financial and business affairs of the 12 State educational institutions, including the State university. This board is also authorized to supervise the erection of all new buildings and the repair of all existing buildings which belong to the State. There are three members of the board, each appointed by the governor for six years, at a salary of $5,000 per year.

In addition to the board of control there was, until 1919, a board of regents, which had charge of the educational work of the 12 State educational institutions. Among other things, this board was authorized to select the heads of the institutions, prescribe curricula, establish departments, fix tuition and fees, and make rules and regulations for the several institutions. Any action on the part of the board of regents which involved the expenditure of funds, including salary schedules, was subject to the approval of the board of control. In 1919 the board of regents was succeeded by the State board of education, which also has charge of elementary and secondary education. This board consists of seven members, the State superintendent of school and six additional persons appointed by the governor for terms of six years each. At least three of the six must be actively engaged in school work. Each receives a compensation of $1,000 per year. The board elects its own president, vice president, and a paid secretary, though the State superintendent of schools is designated as the chief executive officer of the board.

In Minnesota an attempt was made in 1901 to centralize the business of the University of Minnesota and the State normal schools in the State board of control, while leaving the educational affairs of the university and the normal schools to their respective boards of regents. The attempt proved unsatisfactory, however, and within a short time the university and normal school boards were again given full charge of the business affairs at their respective institutions, except that the board of control continues to supervise the erection of all new buildings and to purchase coal for the institutions as well as for the charitable and penal institutions directly under its charge.

In 1905 the Legislature of Florida abolished a considerable number of State educational institutions which had been established from time to time and in their places substituted the University of Florida,

the Florida State College for Women, the Florida School for the Deaf and Blind, and the Agricultural and Mechanical College for Negroes. The legislature also created a central board of control consisting of five members appointed by the governor for terms of four years each. The members of the board receive only their necessary expenses. At the present time there is an appropriation of $8,000 to cover these expenses and to pay the salaries of a secretary and clerks. It also receives an appropriation for the conduct of summer schools in the State.

The following extracts from the law of 1905 define the board's powers and relations with the State board of education:

> Said board of control, except as herein provided, shall act in conjunction with, but at all times under and subject to the control and supervision of, the State board of education. * * * The board of control shall have jurisdiction over and complete management and control of all the said several institutions * * * and is hereby invested with full power and authority to make all rules and regulations necessary for their governance not inconsistent with the general rules and regulations made or which may be made at any joint meeting of the said board with the State board of education.

In Oklahoma, in 1911, provision was made for a State board of education which consisted of the superintendent of public instruction, ex officio, and six members appointed by the governor for overlapping terms of six years each.

The board was given general supervision over the public schools and replaced the separate governing boards of the University of Oklahoma, the normal schools, the Industrial Institute and College for Girls, the School of Mines and Metallurgy, the Colored Agricultural and Normal University, and a number of schools for the blind, deaf, and feeble-minded. The chief exception to this scheme of centralized control was the agricultural and mechanical college, which, together with several secondary schools of agriculture, was by the State constitution placed under the control of the State board of agriculture.

In 1919 the centralized control of the educational institutions under the State board of education was almost completely abolished. All the State institutions of higher learning, with the exception of the agricultural and mechanical college, as noted above, and the normal schools, control over which the State board of education retained, were again granted separate governing boards. The State board of education also has control over the schools for the blind and deaf for white children and over the newly created school of mines at Miami.

In addition to these boards there was created in 1909 a board of public affairs composed of three members appointed by the governor for terms concurrent with his term of office. This board has administrative control over the State penitentiary and hospitals.

It also has "charge of the construction, repair, maintenance, insurance, and operation of all buildings owned, used, or occupied by or on behalf of the State," and it has "authority to purchase all material and perform all other duties necessary in the construction, repair, or maintenance of all such buildings;" also it—

shall contract for, purchase and acquire all furnishings, furniture, and supplies of every kind or description for the use of the State or its officers, or the support of the several State institutions, including printing, stationery, fuel, tools, implements, furniture, books, food, clothing, and medical supplies where the law requires the State to furnish the same.

The laws of 1919 providing for separate governing boards for the university and other publicly controlled institutions of higher learning state that the board of public affairs shall exercise control over these institutions in "maintenance and purchasing supplies and the fiscal management thereof."

In Texas the University of Texas and the agricultural and mechanical college are under separate governing boards. However, the university board, as in Missouri, also controls the State school of mines, and the board of the agricultural and mechanical college also controls two junior colleges of agriculture, and as in Arkansas, the negro land-grant college.

In 1920 there was established a State board of control, whose duty it is—

to purchase all the supplies used by all the departments of the State government and all the normal schools of the State, University of Texas, and the Agricultural and Mechanical College of Texas, and all other State schools heretofore or hereafter created, such purchase of supplies to include furniture and fixtures and to include all things except perishable goods, technical instruments, and books.

The supplies referred to are to be purchased by competitive bids.

In 1917 there was established in the State of Washington a "joint board of higher curricula," composed of nine members, namely, the presidents of the university and the State college; two regents each from the university and State college boards; one president of a State normal, chosen by the presidents of the three normal schools; and one trustee from each of the boards of the other two normal schools. This joint board was charged with the following duties: (1) To consider and make recommendations to the several institutional boards on matters of efficiency and economy in connection with the administration of the several institutions; (2) to survey the several institutions and make a biennial report to the governor, giving enrollments, attendance, and cost per student of operating and maintaining the several courses of study at each institution; (3) to approve all new professional or applied science curricula before they were introduced at any of the institutions; (4) to recommend changes in the mill-tax levy for the higher institutions, accompanied with the reasons for such changes.

In the 1921 session of the legislature the joint board of higher curricula as established in 1917 was abolished and in its place there was created a board bearing the same name, which is composed of the presidents of the university and the State college, one normal-school president selected by the normal-school presidents, and four citizens in no way connected with the several institutions appointed by the governor.

Under both laws the individual governing boards at the several institutions were retained.

In 1909 an act of the State legislature in Oregon directed the governor to appoint, for terms of five years each, a nonpaid board of five members called "The board of higher curricula." The law states that—

> The exclusive purpose and object of the board of higher curricula shall be to determine what courses of studies or departments, if any, shall not be duplicated in the higher educational institutions of Oregon, and to determine and define the courses of study and departments to be offered and conducted by each such institution.

In another section occurs the statement:

> It is hereby made the duty of the board of higher curricula to visit the higher educational institutions, for the purpose of inquiring as to the work offered and conducted at such institutions, whenever and as often as it may deem necessary, and to specifically determine from time to time as occasion may require what courses or departments, if any, shall not, in their judgment, be duplicated in the several higher educational institutions and may direct the elimination of duplicated work from any institution, and to determine and define the courses of study and departments to be offered and conducted by each institution.

In the Oregon scheme the two boards of regents, at the university and the agricultural college, respectively, are retained for the purpose of performing such duties as are not by this act taken away from them. The law does not apply to the State normal school.

In 1909 the Iowa Legislature passed an act abolishing the several boards of regents at the State university, the agricultural and mechanical college, and the State college for teachers. In place of these governing bodies there was substituted a nonpaid State board of education, composed of nine members appointed by the governor, for terms of six years each. The board was authorized to elect—

> a president and treasurer for each of said educational institutions, and professors, instructors, officers, and employees; to fix the compensation to be paid to such officers and employees; to make rules and regulations for the government of said schools, not inconsistent with the laws of the State; to manage and control the property, both real and personal, belonging to said educational institutions; to execute trusts or other obligations now or hereafter committed to the institutions; to direct the expenditure of all appropriations the general assembly shall, from time to time, make to said institutions, and the expenditure of any other moneys; and to do such other acts as are necessary and proper for the execution of the powers and duties conferred upon them by law.

To assist in the management and government of the institutions of higher learning the State board of education was authorized to appoint a finance committee composed of three persons outside their own number, who are on a full-time basis, with salaries of $3,600 each per year. One of the members of this finance committee serves as secretary to the board. A business office is retained at each of the institutions.

According to an amendment to the State constitution of South Dakota, adopted in 1896, the State university, the State agricultural college, the normal schools, and all other educational institutions that are supported wholly or in part by the State are under the control of a board of five members appointed by the governor. Subsequent legislation has fixed the term of office for the members of this board, which is known as the regents of education, at six years.

> In all things the regents are to administer the schools (higher institutions) in such a manner as to enable each of them to do in the best manner its own specific work, but all with a view to the strictest economy and so as to unify and harmonize the entire work of all the schools under their control.

Each member of the board receives a compensation of $1,000 per annum and necessary expenses.

In North Dakota the State legislature in 1915 created a State board of regents, composed of five members appointed by the governor for terms of six years, to replace the normal board of control and the boards of trustees of the higher institutions including the State university and the State agricultural college. The members of the board receive $7 per day and expenses when engaged in work for the State.

In 1919 the functions of this board were merged with the functions of the board of control which was in charge of the penal, charitable, and correctional institutions and with the functions of the State board of education in charge of elementary and secondary education. The new board is known as the board of administration. It consists of the State superintendent of public instruction, the commissioners of agriculture and labor as ex officio members, and three other persons appointed by the governor for terms of six years each with an annual salary of $3,000 per person. The board is required to install a system of accounting and auditing of all moneys received or expended. There is a secretary to the board and also a purchasing agent who not only buys the supplies for these institutions but also for all the departments of the State government.

In succeeding to the duties of the former State board of regents the board of administration is required to—

> coordinate and correlate the work in the different institutions so as to prevent wasteful duplication and to develop cooperation among such institutions in the exchange of instructors and students. * * * It shall make recommendations in regard to needed

legislation for the institutions under its control, and it shall, prior to each meeting of the State legislature, and in ample time for due consideration by the legislative assembly, prepare a budget setting forth the financial needs of all State educational institutions under its supervision and control for the period for which an appropriation is made.

In Georgia, according to the constitution of 1877, the appropriations of public funds for other than "the elementary branches of an English education" may be made only to the University of Georgia. Accordingly when the other State institutions of higher learning, such as the State college of agriculture and the normal schools, were established they were placed under the jurisdiction of the university board of trustees. They are therefore departments or branches of the University of Georgia. However, the branch institutions have individual boards of trustees for local needs. In order to secure close correlation with these local boards the chairman of the university board names three ex officio members of his board to sit with each of the local boards.

In Montana, by a provision in the State constitution, the State university, the State normal college, the college of agriculture and mechanic arts, and the school of mines have been, since their establishment in 1893, jointly under the control of the State board of education. In 1913 it was decided to unify further the State's system of higher education by creating what is known as the University of Montana, which is composed of the institutions already named. The State board of education consists of 11 members, including the governor, the State superintendent of public instruction, the attorney general, and eight other persons appointed by the governor for terms of four years each. This board has general control and supervision over the institutions composing the University of Montana as well as the State orphans' home, the school for the deaf and blind, and the State reform school. It has authority to prescribe standards for the high schools of the State, to set the examinations for candidates from the elementary schools who desire promotion to the high schools, and to appoint instructors in the county teachers' institutes. It also appoints and fixes the compensation of the presidents and faculties of the various higher institutions. Furthermore, it appoints a chancellor of the University of Montana, whose duties and powers, within the limits of the State law, are prescribed by the State board of education. The law further states that it shall be the duty of this board—

to take such steps and prescribe such rules as may be necessary to prevent unnecessary duplication of courses of instruction in the various educational institutions composing the University of Montana; to investigate carefully the needs of each of said institutions with reference to buildings, equipment, and instruction; to estimate the necessary appropriations required for such needs and to make recommendations to the legislative assembly accordingly.

The constitution of the State also provides that a board of examiners composed of the governor, secretary of state, and attorney general shall constitute a board of examiners with power to examine all financial claims against the State except salaries fixed by law. Under this provision and by subsequent legislation this board has had supervision and control of the expenditure of all money appropriated by the legislature for the use of the higher institutions. In 1921, additional laws provided that the budgets for all appropriations should be submitted through the State board of examiners, and that there should be established subordinate to this board a central purchasing department in charge of a State purchasing agent appointed by the governor. The purchasing agent has full authority under the board of examiners to purchase all supplies of any nature for all departments and institutions in the State.

In Idaho a law was passed in 1913 which provides for a "State board of education and board of regents of the University of Idaho." There are five members of the board appointed by the governor for terms of five years each. Each member receives his actual expenses and an honorarium of $100 per annum. The State superintendent of public instruction is an ex officio member of the board.

The Idaho Board of Education supervises and controls the public schools of the State, together with all the State educational institutions, including the school for the deaf and blind, the normal schools, the Idaho Technical Institute, and the University of Idaho. The board is authorized to—

> classify, standardize and define the limits of all instruction in the State educational institutions of the State and promote the efficiency, harmonize the educational interests and, so far as practicable, prevent wasteful duplication of effort in such institutions.

These duties, together with the budgets for each institution submitted to the State legislature and other matters of importance, are administered by a State commissioner of education, whom the State board of education selects for such term of office and at such compensation as seems to it desirable. The commissioner of education is therefore, with the exception of the duties conferred by the State constitution on the State superintendent of public instruction, the chief administrative officer for the State institutions of higher learning, as well as for the elementary and secondary systems of education.

There are other States where the government of the higher institutions has been linked up with the State officials in charge of elementary and secondary education. In Indiana a majority of the trustees of the State university are named by the State board of education. In Massachusetts the Massachusetts Agricultural College and the Lowell Textile School are placed in the department of education. In a number of States, for example, Michigan, Nebraska,

New Jersey, California, Illinois, Tennessee, Rhode Island, Pennsylvania, Oklahoma, and Massachusetts, the State normal schools are governed by the State board of education or a corresponding body

The purpose in reviewing the history of legislation in other States where there have been established central boards of control has been to show the growth of the movement in this direction and to call attention to the variations in the types and functions of these organizations. In Iowa and Idaho independent business officers at each of the higher institutions have been retained. In Washington and Oregon the character of the central organization of the higher institutions does not lend itself to a central business agency. In Montana and West Virginia the business control is separated from the central educational organization. In none of the States, except Kansas and North Dakota, are the higher institutions placed under the same administration with the charitable, penal, and correctional institutions. In several of them, on the other hand, as for example Montana, Idaho, West Virginia, North Dakota, and Iowa, the administration of the higher institutions is united with the same board that has charge of the other educational interests of the State in the fields of elementary and secondary education.

In establishing the central boards of control the legislatures in the several States have had in mind a variety of objectives, among which the following seem to be of chief importance: (1) The elimination of undesirable duplication of courses between and among two or more higher institutions; (2) the elimination of unwholesome rivalry and competition for State appropriations between and among the institutions; (3) the establishment of better business practices and the saving of money through the creation of a central business office and purchasing agency; (4) the gathering of data and statistics showing the cost of education and the needs of the several institutions based on such data; (5) the establishment of a State system of higher education, comparable in character to the system of elementary and secondary education; (6) the establishment of a unified State system of education in which the higher institutions are closely linked up with the system of elementary and secondary schools.

In the development of centralized administration of higher education in the several States, it is natural that some of the objectives outlined in the legislation of the States have been found to be more successful than others. A more extended discussion of the several points raised in connection with the objectives of central boards will perhaps help to clarify the situation.

There has undoubtedly been a persistent and growing popular demand, particularly in those States which have the land-grant colleges separated from the State universities, for the elimination of undesirable costly duplication of courses and departments of study.

Perhaps the best example of an action taken by a central agency to eliminate such duplication was the abolition by the Oregon board of higher curricula of the engineering work at the university and its concentration at the agricultural college. The Iowa board also has taken a number of actions to define the respective fields of the institutions under its care. The Washington joint board of higher curricula, with more data at hand regarding the cost of the curricula at the several institutions than any State in the Union, has failed signally to accomplish anything in the way of eliminating undesirable duplication.

In general, the amount of duplication in courses and departments which has been eliminated by central boards has been small, partly because upon thorough examination central boards usually find that the total amount of wasteful duplication between institutions is always much less than at first supposed. In the next place, even when undesirable duplication has been recognized, central boards sometimes find that action to eliminate duplication may arouse more trouble than the good which they can accomplish. Finally, the composition of the board, when made up wholly or largely of representatives from the institutions themselves, as was formerly the case in Washington, undoubtedly prevents a board from taking definite steps for the elimination of undesirable duplication.

On the other hand, a great deal of competition for appropriations has been adjusted by central boards, who reduce the budgets to the lowest terms commensurate with the needs of the several institutions before they reach the legislature. As a result, it is either unnecessary for the institutions to make a campaign in the legislature to secure the appropriations or the necessity for such action is reduced to the minimum.

The establishment of better business practices on the part of higher institutions has been and still is in many instances an urgent necessity. Many people are convinced that the establishment of a purchasing agency for all the State institutions, including the higher institutions, will result in saving much money to the State. Kansas, Montana, North Dakota, Oklahoma, Texas, and West Virginia are at present the most conspicuous examples of central business agencies, including purchasing departments.

Some doubt may, however, be expressed as to whether the State saves any considerable amount of money at its higher institutions through the operations of a central business office. Certainly the character of the purchases of educational institutions, with a few notable exceptions such as coal, are so radically different from that at charitable and penal institutions that it is not often the State can profit through opportunity to buy large quantities of supplies for the higher educational institutions in conjunction with other types.

of institutions. Indeed, the failure of a central business office to appreciate the necessity of ordering the definite technical apparatus suited to the specific needs of the various departments of all the higher institutions may work a very real hardship upon them. Furthermore, any delay as a result of handling orders for supplies through a central business agency may seriously impair the quality of the work of an educational institution. Finally, the withdrawal of all or nearly all of the business offices of a State college or university from the institution to some central point, for example, the State capital, may embarrass the executives greatly in securing quickly full information concerning the finances of the institutions under their charge.

These remarks are directed more particularly to the larger higher institutions than to the smaller ones. Indeed, the larger a State university or college becomes, the more desirable it is that it should be practically independent of a central business office. On the other hand, the small institutions may very well secure much greater benefits from such a central business office, because ordinarily they have only small facilities for taking care of business matters. Moreover, they do not always know where to purchase supplies most economically, nor are their orders in such quantities as to command the lowest prices.

In a general way, therefore, central business offices for the large higher institutions are most successful where they confine themselves chiefly to the purchase of supplies and when they accept freely and unquestionably the advice of the institutions concerning the type of techinal material wanted. In considerable measure the business offices should be recording and checking offices for the purchase of supplies.

On the other hand, there seems no reason why, for example, the purchase of coal should not be handled entirely by a central agency. It is very likely also that a central business office may supervise the erection of all buildings as effectively, if not more effectively, than individual institutions.

As an agency for the gathering of statistics and other data regarding the higher institutions regularly and systematically, the joint board of higher curricula in Washington has been more active than any other central board. This board has devised a method of securing accurate enrollment and attendance statistics, salary statistics, sizes of classes, room space used, and maintenance expenditures which have been used to compute the per capita cost of instruction in the various courses of study at the several institutions. The experiment has been a valuable one, although so far very little use has been made of the material.

In Idaho the matter has been carried still further by establishing a commissioner of education at the head of the entire educational

system responsible only to the State board of education. The State superintendent of public instruction is retained only to perform the constitutional duties appertaining to the office.

STANDARDS FOR GOVERNING BOARDS.

A board which controls and administers the higher institutions of a State is dealing with the State's most fundamental agency for progress. Upon the proper solution of educational problems and the intelligent determination of educational policies in the State universities and colleges waits the material, moral, and cultural standards which are to obtain in nearly all the States. They are indeed problems and policies which deeply concern the present generation, but they more vitally affect those who come after us.

In order that these important functions may be performed most satisfactorily, it is essential that the basis for choosing the governing board of higher institutions should be sound in principle. The history of boards of trustees of separate institutions affords what appears to be conclusive evidence on this matter. There is no reason to believe that the basis for choosing central governing boards should vary from that which has been found to be good practice for separate institutions.

It should be assumed that the men who compose such a board should be capable of sound judgment and a prophetic view which will enable them so to shape the careers of the institutions under their charge as to make them of the highest possible service to the people of the State. They should usually be men of some educational attainment, whose experience has been broad and deep enough to give them definite conceptions of the purposes of higher education and the necessary equipment and facilities to accomplish the desired ends. Furthermore, in order that the welfare of all the people in the State may be the single consideration, the board should be composed of public-spirited men chosen without reference to political creed, denominational attachment, or sectional interest. At the same time these men, through their public contacts and the weight of their published opinion, should be able so to interpret the higher institutions to the people as to establish and maintain perfect mutual confidence.

In performing these functions a board of this character will administer chiefly in the realm of the larger and more fundamental problems confronting the higher institutions. To the executives and their respective faculties will be left the particular method of carrying out these policies. It should be remembered also that the executives of the higher institutions will often initiate fundamental educational policies, but in every case the approval of these policies should wait on the deliberate judgment of a board which represents the broad

terests of the State. In this manner the institutions are made to follow consistently through a period of years the broad outlines of an educational policy that is developed and shaped wisely as new conditions arise.

The services of men who can most satisfactorily perform the functions which have been described are ordinarily not to be had in return for any salary which a State is willing to pay. It is a type of service which appeals only to the social instinct and to that pride that comes from performing notable public service. Given satisfactory conditions, however, this service engages the attention and devotion of men of consequence and attainment who will not under any circumstances undertake any other public career.

It would seem to follow, therefore, that the central board which has charge of the higher educational interests of a State should comprise prominent laymen in the educational world who are appointed by the governor on a nonpaid basis. The number of men on the board should be about nine, appointed for terms of seven to nine years, in order that all temptation to use the board for political purposes may be removed. At the same time this arrangement safeguards the institutions and the State against abrupt changes in the fundamental educational policies of the institutions. So important have these several considerations been regarded in such States as Michigan, Missouri, Nebraska, and California as to lead to a provision in the State constitution for the appointment of the governing board. Experience in other States seems to point against the presence of ex officio members on the board. Also it seems to be clear that a full-time board devoting its entire attention to the higher institutions is inadvisable because such a board is naturally tempted to encroach on the internal administration of the institution.

In laying down this basis for a central board of the most satisfactory character, the commission believes that it is only repeating what has been found to be the most successful basis for choosing boards of trustees at individual State institutions of higher learning. In the surveys of higher institutions conducted by the Bureau of Education boards of trustees so constituted have been repeatedly recommended. The problem is no different when central boards of control are under consideration.

ANALYSIS OF THE KANSAS LAW.

The law establishing the present board of administration in Kansas was approved by the governor, February 27, 1917. It went into effect on the following 1st of July. Including certain amendments which have been made by succeeding legislatures, the law provides for a board composed of four members, consisting of three electors appointed by the governor, "who shall be chosen without reference

to party politics and because of their fitness for the duties of the office, by and with the advice of the senate." The governor himself is the fourth member of the board and is the chairman. The term of office for the appointed members is four years, one retiring at the end of one biennium and the other two at the end of the next. The appointed members give all their time to the duties of the board, for which they receive a compensation of $3,500 per year. The law also provides that the board shall appoint a secretary at $2,000 per year and a business manager at a salary to be fixed by the board.

The board of administration with one or two unimportant exceptions has charge of all the State educational, charitable, penal, and correctional institutions, numbering with their branches 27 in all. They are as follows: University of Kansas, Lawrence, together with the medical school and the Bell Memorial Hospital, at Kansas City; Kansas State Agricultural College, Manhattan, together with the four branch agricultural experiment stations at Hays, Garden City, Colby, and Tribune; the three normal schools at Emporia, Hays, and Pittsburg; School for the Blind, Kansas City; School for the Deaf, Olathe; State fish hatchery, Pratt; Western University (colored), Kansas City; Industrial and Educational Institute (colored), Topeka; the four State hospitals at Topeka, Osawatomie, Larned, and Parsons; State training school, Winfield; State sanatorium for tuberculosis, Norton; State orphans' home, Atchison; Kansas State Penitentiary, Lansing; Kansas State Industrial Reformatory, Hutchinson; women's industrial farm, Lansing; Boys' Industrial School, Topeka; and the Girls' Industrial School, Beloit.

According to the law the board of administration—

> shall control and manage said institutions, including the erection of all buildings, additions, alterations; * * * shall appoint the superintendent, warden, or other executive officer for each of the educational, benevolent, penal, or corrective institutions; * * * upon recommendation of the superintendent or executive officer of each institution, annually determine and fix, with the written approval of the governor and business manager, the annual or monthly salary of all officers and employees of the several institutions.

The board holds for the State the property of the several institutions. It receives and executes trusts for them, and authorizes "such expenditures for the interest of said institutions as may in its judgment be necessary."

Although the board seems to enjoy almost unlimited power in its administration of the institutions, it was evidently intended that the internal administration of each institution should be left largely to the local executives, as is evidenced by the provisions stating that superintendents or executive officers "shall appoint, subject to the provisions of the civil service laws of Kansas, all officials, clerks, guards, and employees"; that the executive officials may discharge

any employee for cause; and that salaries are to be fixed by the board upon the recommendation of the superintendents or the executive officials. They, too, are responsible for all the supplies and property belonging to the institutions under their charge.

The law provides that the "business manager shall under the board have full authority to manage and control such institutions by and with the advice of the board and to purchase all the supplies required by such institutions." In the statute as amended in 1921 it is stated that the business manager shall cause a full and complete inventory to be made at each institution; that under the direction of the board he shall have full charge of erecting all buildings and making all repairs; and that he—

after full conference with the superintendent or other executive officer of the institutions * * * with the advice and consent of the State board of administration, shall prepare for the use of the governor biennial estimates of appropriations necessary and properly to be made for the use of the institutions under his control, and recommendations for special expenditures for buildings, betterments, or other improvements.

It is also provided that contracts for all buildings are to be let only after public bids have been submitted and accepted in accordance with the specifications as laid down by the State architect. It is also stated that the act contemplates the keeping of such records and accounts as will show "not only the cost of maintaining each of said institutions but the per capita cost of maintaining the inmates thereof."

It is obvious that the act is full of inconsistencies. In the first place, the relations of the business manager to the board are by no means clear. The law provides that he is to be appointed by the board; that "under the board" he is to "manage and control" the institutions, the very words used in conferring authority on the board itself; that with the "advice and consent" of the board he, not the board, shall transmit to the governor biennial estimates of the needs of the institutions. On the other hand, one finds provisions authorizing the board to make rules and regulations with respect to the advertisement of bids, and in another place the "board" is authorized to purchase chemicals and other materials. Obviously it was intended to make the office of business manager of some consequence, and in doing so the respective functions of the board and the business manager are so intermingled as to be workable only by common forbearance.

The next obvious fact is that the law was evidently not written with the institutions of higher learning primarily in mind, nor, if we may judge by the wording, even secondarily in mind. Nowhere throughout the law do we find the words chancellor, president, professor, or instructor mentioned, whereas the paragraphs are replete with the words superintendent, warden, "other executive officer,"

clerks, officials, steward, employee, guards, and inmates. Indeed, if it were not for the fact that the institutions of higher learning were specifically named in one of the paragraphs and that "educational institutions" are spoken of in seven other places in the act, there is nothing in the law which would lead the casual reader to suspect that it referred to the University of Kansas, the State agricultural college, or the three State normal schools.

A study of the act creating the board of administration convinces one that the dominant motives in the mind of the legislature were to eliminate as many State boards as possible and by the establishment of a central business office to save the tax payers of the State a large amount of money. It was apparently presumed that the control and management of all State institutions of whatever character and the purchase of supplies for them was sufficiently similar in character as to constitute a common problem.

The basis of this thinking is largely fallacious. Already it has been demonstrated that the purchase of technical apparatus and supplies for institutions of higher learning is quite a different matter from buying food supplies for the State hospitals. The business manager in Kansas has recognized this fact and therefore, respecting the higher institutions, largely confines his attention to supervising the erection of buildings, buying coal, ordering expeditiously the particular apparatus and supplies requested by the officers at the higher institutions, and to checking up the accounts of the institutions to see that they do not exceed their appropriations. In other words, the higher institutions have for the most part been given all the latitude they need in the purchase of supplies, and there is therefore uniform satisfaction with that arrangement.

The most fallacious part of the present law establishing the board of administration is the assumption that there is some inherent relationship between charitable, correctional, and penal institutions, on the one hand, and colleges, universities, and normal schools, on the other. It is true that there should be arrangements, for example, whereby the medical school of the State university may have easy access to the State hospitals, in order that each type of institution may have the benefits that arise from close association with one another. It is a well recognized fact, also, that at the correctional institutions, and to a certain extent at the penal institutions, the educational element is being stressed more and more as the most effective means of reforming character and training both younger and older people for remunerative vocations. It should be realized, however, that, in dealing with the education of people confined to these institutions, the board is confronted with the problem of training more or less abnormal or subnormal people in elementary and vocational studies, whereas in the institutions of higher learning it is responsible for policies relating to the most specialized and profes-

sional studies that the State supports. Presumably for these reasons no other States except Kansas and North Dakota have placed their institutions of higher learning under the same control with the charitable and penal institutions.

Apart from the considerations which have been mentioned is the fact that the present board has too little time to devote to the consideration of problems relating to higher education. Its attention is so engrossed with problems of general and internal nature, including paroles and pardons, at the penal and correctional institutions, that it is quite impossible for the board to devote the time and attention necessary for the most satisfactory development of sound educational policies relating to higher education. The State can not afford either from a financial or educational point of view to neglect so important a consideration.

It should be recalled also that the term of office for the appointed members of the board is only four years, a situation which, taken in conjunction with the fact that the governor is a member and chairman of the board, gives to him the political opportunities which in other States, as already stated, have been found to be unwise. Not the least of these dangers is the possible unwise or improper selection of a business manager. It should be recognized at once that nothing contained in this criticism is in any way directed at the present business manager or at the personnel of the board, past or present. Indeed, on the contrary, we have in the present board an eloquent example of the well-known fact that any system of government may be workable provided it is conducted by good and capable men.

Because the board has not had adequate time to devote to the higher institutions, it follows that it has been unable to collect statistics and other data running through a series of years, which enables it to keep abreast of the developments at the several higher institutions. There is, for example, no common basis for gathering statistics concerning salaries, teaching load, student attendance, use of room space, or the cost of instruction. Consequently, the board has at its disposal only general information and impressions gained from noncomparable data for use in determining the respective budgets to be submitted to the legislature.

The true significance of this situation is the fact that, while through the business manager ample provision is made for the economical purchase of supplies and technical apparatus, for the erection of buildings and repair of buildings at the lowest possible cost, and for checking each item of expenditure against the appropriation, there is as yet no organization, except at individual institutions such as the university and the State agricultural college, to study costs and expenditures with a view to the wisest and most economical use of the funds entrusted to each institution. An organization of this

sort is fully capable of saving to each institution and to the State far more than a central purchasing agency is likely to save.

The board has given inadequate attention to the number and character of new courses of study introduced from time to time at each institution. The following data regarding the introduction of degree curricula at the several institutions since 1917 illustrate this statement:

1. UNIVERSITY OF KANSAS.

1919. Requirements for admission to the law school increased from 30 to 60 hours of arts and science work; effective 1921-22; authorized by board of administration, December 9, 1919.

1920. Course of study leading to degree of bachelor of science in architecture; authorized by the board of administration, January 21, 1920.

1921. Four-year course of study leading to degree of bachelor of design voted by faculty of the school of fine arts; not referred to the board of administration.

2. KANSAS STATE AGRICULTURAL COLLEGE.

1919. Four-year curricula leading to bachelor's degrees in agricultural chemistry, biological chemistry, and industrial chemistry; not referred to the board of administration.

1920. Four-year curriculum leading to bachelor of music degree; not referred to the board of administration.

1921. Four-year curriculum in rural commerce; informal consent of the board of administration.

3. STATE MANUAL TRAINING NORMAL SCHOOL.

1919. Agreement between the university and the Pittsburg Normal School for the former to accept the first two years of the four-year engineering course of study as given at the normal school and for the normal school to conduct two-year curricula in industrial engineering; agreement authorized by the board of administration.

4. FORT HAYS KANSAS STATE NORMAL SCHOOL.

1920. One-year curriculum in telegraphy and railway station training; informal approval of the board of administration.

The introduction of these curricula were important departures in the policies of the several institutions and should have received more formal consideration by the board of administration than was given in most instances. Otherwise the danger of undesirable duplication of work is greatly increased. Indeed the commission is convinced that some of these departures in policy which have been taken without adequate consideration by the board of administration are fraught with dangers which will be more fully appreciated in the future than now.

Notwithstanding these criticisms of the legal basis of the present board and its failure to accomplish some of the things that might reasonably be expected of a central board, it should be realized that the policy of noninterference in the internal affairs of the higher institutions which the board has followed consistently has had a wholesome effect at the institutions. No educational institution can

develop properly if there is constant interference by the governing board with the details of administration. The attitude of the present board in this particular has been most commendable.

Moreover, the present board by its quiet and sometimes informal influence has succeeded in eliminating a number of interinstitutional difficulties, with the result that the relations between the institutions are probably more friendly now than they have been for many years. Furthermore, the central business office has commanded such general approval that no suggestions for any change in that respect have been made. Indeed, it is not too much to say that, on account of its policy of noninterference in the internal affairs of the educational institutions, the entire administration of the board has been generally commended at the institutions.

In this review of the manner in which the Kansas Board of Administration meets the approved standards for the governing boards of higher institutions, it is apparent that the commission feels that the law in Kansas provides a very inadequate basis for the most satisfactory governing board of the Kansas institutions of higher learning. It is convinced that, notwithstanding the comparative success of the board up to this time, the present arrangement will, for the reasons which have been set forth, prove, sooner or later, to be unsatisfactory. On this account the commission is driven to the conclusion that the control and management of the institutions of higher learning should be divorced from the other institutions now in charge of the board of administration.

A far better arrangement would be a new nonpaid board of from seven to nine members, appointed by the governor for terms of from seven to nine years, to take over the control and administration of these institutions. The business manager's office, with a clear definition of its functions and of its relations to the new board, should remain essentially as at present, except that the larger institutions need more competent business officers. A well-trained educator with no administrative duties should become the secretary of the new board and should, under the direction of the board, devise plans for gathering at regular intervals comparable statistics and other data for the use of the board.

The commission is strongly of the opinion that such a central board would be free from the possibility of undesirable political influence, that it would attract men of marked ability and sound judgment to its membership, that through the office of secretary it would be able to secure from the institutions comparable statistics and other data in order to make intelligent decisions, that it would have adequate opportunity to consider and develop continuously large educational policies without any temptation to interfere in the internal administration of the institution, and that in general it would devote itself zealously to the promotion of higher education in the State.

Chapter III.

ADMISSION OF STUDENTS AT THE HIGHER INSTITUTIONS.

One of the most significant movements in education during the last 30 years has been the growth of the secondary schools. From 1890 to 1917-18 the attendance at universities, colleges, and professional schools increased from 156,449 to 375,359, or 139 per cent; whereas the increase in high-school students for the corresponding period was 710 per cent. While therefore there is a constantly increasing proportion of the population which is entering college, the proportion of high-school students who go to college is steadily decreasing.

This fact has produced among the public school administrators of the country an insistent demand that the higher institutions reduce the specific requirements for entrance to college to a minimum, in order that the curriculum of the high school may be freed from the control which college entrance requirements have always exercised. The demands of the public school administrators and others interested in liberalizing college entrance requirements have found their most advanced expression in laws which have been passed in Ohio and Kansas and in regulations which have been adopted by the State board of education in Iowa.

In Iowa the State board of education adopted regulations in 1919 providing that:

1. A graduate of any Iowa public four-year high school will be admitted without examination to such collegiate work as he is prepared to pursue in the State University of Iowa, the Iowa State College, and the Iowa State Teachers College upon presenting a certificate signed by its principal, specifying the branches of study and credits included within his high-school course. A graduate of any four-year high school, seminary, or academy approved by the board of secondary school relations will be admitted on the same basis.

2. It should be clearly understood that this arrangement does not affect the requirements for college graduation.

3. If a high-school graduate does not meet present admission requirements to the course he desires to pursue, the deficiency must be removed at the institution entered. Credit earning in removing such deficiencies will not be applied toward college graduation in the specific course chosen.

4. Provision will be made at the State institutions for the removal of all deficiencies for admission to specific courses.

The Kansas law, passed in 1915, states that:

Any person who shall complete a four-year course of study in any high school accredited by the State board of education shall be entitled to admission to the freshman class of the State university, the State agricultural college, or any of the State

normal schools, on presenting a statement containing a transcript of his high-school record signed by the principal of the school and certifying that such person has satisfactorily completed said course of study.

One who is familiar with the narrow entrance requirements of higher institutions some years ago and with the public interest in vocational education which has swept the country in recent years can understand the movement for liberalizing college entrance requirements, but it is somewhat difficult to realize that the situation should be so thoroughly reversed as to give the higher institutions no control whatever over the requirements for the admission of students.

The natural result of legislation of this type is to produce a cleavage between an endless variety of high-school curricula and the college courses of study which students enter. Students who have taken large quantities of vocational and nonpreparatory work in high school come to college with inadequate preparation in basic courses, such as English, mathematics, and languages. The experience of the higher institutions in Kansas is well expressed by Dean Walker, of the University School of Engineering, in the last biennial report, as follows:

> Attention is called to a very serious condition that is developing. Students are coming in large numbers inadequately prepared in mathematics. When they have been permitted to pass through high school with only one year devoted to algebra and that the first year, they come to the university hopelessly handicapped, practically ignorant of the first principles of the subject. They can not carry the standard course in college algebra but must take supplementary work, necessitating the postponement of something else, and so are made irregular at the start. It is seldom that such students are able to graduate in four years.

The evidence concerning the inability of graduates from the high schools in Kansas to meet the so-called entrance requirements is contained in the following table. When it is recalled that the specific requirements of these two institutions, as at most other higher institutions in the country, are less numerous now than in former years, the situation is all the more distressing.

Entrance deficiencies of graduates from accredited high schools in Kansas, 1921–22.

Institutions.	Graduated from accredited high schools in Kansas—			Number of deficiencies in—								
	Who met entrance requirements.	Who did not meet entrance requirements.	Percentage not meeting entrance requirements.	Algebra.	Geometry.	Mathematics.	Physical science.	Science.	Physics.	English.	Excessive miscellaneous units.[1]	Total deficiencies.
University of Kansas	699	265	27.5	61	91	12	9	43	..	1	165	382
Kansas State Agricultural College	457	308	40.0	208	165	....	....	....	75	3	....	451

[1] At the university a student is not permitted to offer more than 3 units from a group of miscellaneous units. In accepting certificates from accredited high schools in Kansas, however, the university found 165 students who had an excess of miscellaneous units.

In part on account of this situation the university has devised a five-year course of study in engineering. The first year of this curriculum is composed entirely of basic courses in the college of liberal arts and sciences. The catalogue states significantly that "the five-year plan is recommended strongly for recent graduates of high schools."

Both at the agricultural college and the university students who come inadequately prepared in algebra are given a five-hour course in college algebra instead of the usual three-hour course. At the former if there is a deficiency in solid geometry students are required to take a two-hour course in that subject. Students deficient in physics are given a four-hour course in the secondary school of agriculture. In the general science curriculum students are given college credit for all these courses; in the division of engineering it is at the option of the dean whether college credit is given for them.

The situation at the agricultural college is an illustration of the inevitable effect of laws of this nature on the curriculum of the college. It is all very well for proponents of such measures to insist as in the Iowa regulations that "this arrangement does not affect the requirements for college graduation." The fact is that it has proved impossible for higher institutions to resist the pressure to repeat secondary work in college and to give college credit for work that is essentially of high-school character. In this way the higher institutions, instead of gradually dropping elementary work in languages, rhetoric, history, mathematics, physics, and other subjects to the high schools where they belong, are constantly under the necessity of repeating an increasing proportion of the high-school curriculum for college credit. Under these circumstances administrative difficulties are multiplied and the higher institutions develop with increasing difficulty their legitimate function of higher education.

Aside, however, from these difficulties is the gross injustice done to students in high school when they are allowed to presume that the completion of any high-school curriculum is preparatory to college. If an institution attempts to hold rigidly to the completion of a thorough curriculum, such students are confronted with the necessity of making up a considerable amount of work, thus throwing on these students the burden of increased work and irregular schedules. Many such students prove unequal to the added burden and are compelled to withdraw from college. Presently it appears to the administrative officers that the most satisfactory method of avoiding these difficulties is to require for entrance to professional curricula one or two years of preprofessional work in arts and sciences, as in medicine, dentistry, law, and now, perhaps, in engineering. The commission is convinced that these preprofessional requirements would not be so numerous to-day if there were at present a close correla-

tion between the high-school curriculum and the particular curriculum which a student enters at college. College and university students are paying a high price for the lack of college entrance requirements and for such laws as now appear on the Kansas statute books.

In this connection it may be well to quote the standard regarding entrance to college which was adopted recently by the committee on standards of the American Council on Education and recommended to the several accrediting agencies in the United States:

> A college should demand for admission the satisfactory completion of a four-year course in a secondary school approved by a recognized accrediting agency or the equivalent of such a course. The major portion of the secondary school course accepted for admission should be definitely correlated with the curriculum to which the student is admitted.

To the commission it appears as if more cognizance of the needs of both college preparatory students and noncollege preparatory students should be taken. The last figures of the United States Bureau of Education showed that although the proportion of high school graduates who go to college is steadily diminishing, yet about 51 per cent of the graduates of high schools at the present time go to college. Surely the one-half who do go to college deserves as much if not more consideration than those who for one reason or another do not do so. The commission is convinced, therefore, that the Kansas law is wrong in principle; that it should be repealed; and that steps should be taken to organize the high schools into sufficiently large units to meet more adequately the needs of students who go to college as well as those who do not.

Until that time comes the commission suggests that the State institutions join with the privately supported institutions in the State in calling the attention of high-school students to the subjects given in the high school which are preparatory to the several curricula at college or university. Concerted action of this type in Oregon has resulted in rebridging to a considerable extent the gap between high school and college.

On account of the law requiring the admission of graduates from accredited high schools in Kansas the admission officers at the several institutions are not given much leeway. They have the liberty of holding students who come from secondary schools outside the State and graduates from unaccredited high schools in the State rigidly to the so-called entrance requirements published by each institution.

At the university students from unaccredited high schools are required to take entrance examinations in all their subjects. Students with conditions are not admitted.

At the agricultural college graduates of unaccredited high schools are admitted on the same basis with those from the accredited high schools, except that they are held to the specific or prescribed re-

quirements published in the catalogue. Students may be admitted with one unit condition, which must be made up during the first year that the student is in attendance. If not made up within that time, college credits are taken in its place.

At the Hays Normal School students from unaccredited high schools are also admitted on the same basis with those from accredited high schools, providing the length of the course and the recitation periods conform to the standard definition of a unit. Students from schools where there is a deficiency of this character are required to make up the requisite amount of work in the academy. Students are admitted with two entrance conditions, and at any time during the year. County teachers' certificates are also recognized for the various high-school units which each requires.

At the normal school at Pittsburg the graduates of unaccredited high schools are received on the same basis as those from the accredited high schools, provided they meet substantially the graduation requirements of the high school at the normal school. Until July 1, 1921, teachers with first-grade certificates were allowed 7 units credit and required to offer only 8 additional units for entrance. No credits for county certificates are now given except through examination. Students who have done postgraduate work in high schools may receive through the accrediting committee, consisting of the president, the registrar, and the dean, normal school credit without examination. Students are admitted with one entrance condition, which may be made up either in the training school or through college credit, depending on the age of the students. As at Hays, students are admitted at any time during the school year. Students in the industrial engineering courses of study, although regarded as of collegiate grade, are for the most part graduates of a one-year trade course. About 33 per cent of them only are graduates of high school. The entrance records at Pittsburg were far behind and in bad condition.

At the Kansas State Normal School students from unaccredited high schools are examined in four representative lines of the high-school curriculum, such as English, history, mathematics, and science. Students are allowed to enter with one condition. Those who enter with two or more conditions are classified as high-school students. College credit for postgraduate work following the completion of a four-year curriculum may be secured by examination, but has not been done for at least two years. As at Hays and Pittsburg, students are allowed to enter at any time during the year. The registrar's records were remarkably well kept.

On the whole the commission felt that entrance requirements, so far as it was in the power of the institutions to safeguard them, were being well enforced. Obviously the university and the Emporia

Normal School seem a little more strict regarding the entrance of students from unaccredited high schools. All the normal schools follow a somewhat loose policy in permitting students to enter at any time. Notwithstanding the reduction in credit for those who enter late, the commission is of the opinion that a definite date ought to be set each semester after which students will not be received. To permit students to enter at any time is seldom a real accommodation to them, and it is of decided disadvantage to the other students whose classes such belated students enter. There are other matters relating to the entrance of students about which there might well be a common policy at all five of the institutions.

Chapter IV.

THE FUNCTIONS OF THE UNIVERSITY AND OF THE AGRICULTURAL COLLEGE.

Reference has already been made to the fact that in the State constitution there is a provision to the effect that there should be established a State university "for the promotion of literature and the arts and sciences, including a normal and an agricultural department." In 1863, however, at the time that the legislature selected Lawrence as the site of the university, it also passed acts accepting the conditions of the Morrill Act and located the college of agriculture and mechanic arts at Manhattan. At the same time it located at Emporia a State normal school,

> the exclusive purposes of which shall be the instruction of persons both male and female, in the art of teaching, and in all the various branches that pertain to a good common school education, and in the mechanic arts, and in the arts of husbandry and agricultural chemistry, and in the fundamental laws of the United States, and in what regards the rights and duties of citizens.

Attention is drawn to these provisions in the constitution and in subsequent State laws to show that the constitution wisely laid the basis for including all forms of cultural, scientific, professional, and technical education in a single State university, but that, perhaps largely because of a strong difference of opinion as to where the university should be located, the State legislature unfortunately took the easy road and established the university at Lawrence and the land-grant college at Manhattan. The extracts from the State laws illustrate further that there was at that time no definite conception in the minds of the legislators of the respective educational fields of the several institutions; otherwise the normal school, founded in the same month with the agricultural college, would not have been charged with instructing students "in the mechanic arts, and in the arts of husbandry and agricultural chemistry."

With so indefinite a conception of their respective fields of work, a situation shared by all the States, particularly the 24 States where land-grant colleges were established apart from a university, it was quite natural that each of the State institutions in Kansas should be guided in its development by experience rather than by the constitution or early State legislation. For this reason one finds that although the university, following the dictates of the State constitution, early established a normal department, it was abandoned in 1885.

The constitutional injunction to establish an agricultural department at the university has never been seriously contemplated. On the other hand, the college of agriculture and mechanic arts at Manhattan, in common with all other separated land-grant colleges, found little response in the early days to instruction in agriculture, largely because at that time farming was not intensive and also because agriculture had scarcely developed into a real science. Much of the work, therefore, of the agricultural college in those days was a weak imitation, as in other States, of the usual arts and science curriculum, with a certain amount of "practical" work thrown in.

In the development of their respective fields of educational work the university and the agricultural college in Kansas have not been guided altogether by local conditions; there is not therefore in Kansas a unique situation. Both of them are a part of the larger development of the respective functions which the two types of institutions ought respectively to carry out. In part this consensus of opinion has been written into State and Federal statutes; in part it is unwritten and flexible but nevertheless important educational policy.

In Kansas practically the only legislation which defines the respective fields of the university and the agricultural college has been the character of the State appropriations made to each institution from biennium to biennuim and the well-known Federal statutes relating to the purposes for which the Federal subsidies to the land-grant colleges may be used. By accepting these Federal subsidies the State has obligated itself, according to the Morrill Act of 1862, to use the income from the Federal land-grant for—

> the endowment, support, and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branchss of learning as are related to agriculture and the mechanic arts, in such a manner as the legislatures of the States may respectively prescribe in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

In the later acts Congress provided that the additional Federal subsidies were—

> for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an act of Congress approved July 2, 1862 * * * to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematics, physical, natural and economic science, with special reference to the industries of life, and to the facilities for such instruction.

In the act of 1907 it was further provided "that said colleges may use a portion of this money for providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts."

Through the passage of the Hatch and Adams Acts the Federal Government also provided for the establishment of agricultural experiment stations at the land-grant colleges. As has been mentioned earlier, the State, by accepting the conditions of the Smith-Lever law of 1914, obligated itself to carry out, through the agricultural college, extension work in agriculture and home economics. Also, the fact that the agricultural colleges have developed agriculture, home economics, and manual arts more extensively than other institutions, has naturally made them the chief beneficiaries of the funds provided under the Smith-Hughes Act for the training of vocational teachers in agriculture, trades and industries, and home economics.

By accepting the conditions of the Federal statutes providing subsidies for the development of certain fields of work at the agricultural college the State has marked out some of the main lines of work to be followed at that institution. To be sure, there is no obligation, specific or implied, to prevent the State from also developing work of exactly similar character at the State university, nor, on the other hand, is there any obligation not to develop work of other kinds at the agricultural college than those specifically mentioned in the Federal statutes. Both things have been done in every State in the Union where there are two institutions, as witness the nearly universal presence of sciences, engineering, and home economics at both the universities and agricultural colleges. The fact that certain of these developments are now so nearly universal and yet comparatively recent should make us hesitate about the possibility of setting ironclad bounds to the development of such growing organizations as a State university or a State agricultural college. After all, their development in particular directions is normally in response to well-defined State needs. No institution gets very far in an attempt to develop courses for which there is little or no demand. It can not afford to keep up such attempts either from the point of view of money unwisely spent or from the reaction of public opinion against such ill-advised action. For the most part, therefore, all State institutions of higher learning have developed those fields of work which the public has demanded. Particularly is this true in a great State like Kansas, with two large institutions, one with nearly 4,000 and the other with nearly 3,000 resident collegiate students during the regular session. There was a time, and it was a long time, when the separation of the institutions was an educational crime which caused expensive duplication of work and tended to lower standards of work. Even yet there are losses, caused by the separation of the institutions, which are irreparable. Nevertheless, the enormous growth of the student body at both institutions

in recent years has alleviated this condition considerably and even produced some compensating advantages in the ability of the two institutions to reach a larger number of students than would probably be served by a single institution. Certainly the increased student body at both institutions has solved many problems of costly duplication and turned them into advantages to the State. In discussing the respective fields of work which should be developed at each institution, it is well to remember that the future growth of the two institutions may solve as many if not more of the embarrassing problems of duplication which arise from time to time than the past has solved. Furthermore, as will appear later, the commission finished its investigation with the definite feeling that there is at present at the two institutions a minimum of undesirable duplication.

Notwithstanding the fact that future events will necessarily determine in large part the nature of the development at both the university and the agricultural college, there is much that can be said concerning the proper division of functions between the two institutions. These things are all the more clear now that each has had the experience of more than a half century to develop not only along the lines needed in the State but also in accordance with the traditions and history of similar institutions in other States.

At the outset it may be well to point out that, inasmuch as both institutions were established and have since been supported and maintained almost exclusively from State appropriations, the only consideration which can enter into this discussion is such a division of functions and of work as will best serve the interests of the people of the State. The ambitions of particular institutions have no place in the matter save as they can demonstrate that the programs of development which they hope to follow are in line with the needs of the State.

The State university, in keeping with the constitutional mandate and in common with other institutions of similar character, has developed as major lines of work the liberal arts and sciences, engineering, architecture, medicine, pharmacy, law, fine arts, education, journalism, and graduate study. The agricultural college, on the other hand, has developed as major lines of work agriculture, veterinary science, engineering, home economics, industrial journalism, music, general sciences, architecture, and graduate study. At once it becomes clear that the present division of functions affects the technical and professional courses of study primarily. Medicine, pharmacy, and law are taught only at the university, while the agricultural college has always been conceded the entire field of agriculture and veterinary science. In the other fields of work there is frankly an overlapping of functions, each of which will be discussed in turn.

ENGINEERING.

Engineering has always been one of the most troublesome sources of duplication wherever the land-grant college has been separated from the university. In all the States except Oregon and Indiana the universities as well as the agricultural colleges have developed engineering schools. In Massachusetts, where there is no State university, the engineering has been located at the Massachusetts Institute of Technology and not at the agricultural college.

The engineering curricula at the University of Kansas, as at other similar institutions, were established with a view to making engineering a profession comparable in importance and dignity with the older professions of law and medicine. In this expectation there has been a certain amount of disappointment even at the most prominent engineering schools, because as yet the engineering curriculum, particularly in the first two years, partakes of certain fairly elementary cultural and scientific subjects, which has prevented it from becoming exclusively professional in character. At the agricultural college and other institutions of its type, "mechanic arts" was for many years used rather loosely to include all forms of practical work with machinery, most of it of secondary character. Owing to the rapid development of engineering science throughout the country, however, the agricultural colleges, as soon as they have dropped subcollegiate work, adopted engineering curricula which are similar in character to those at other engineering schools whether publicly or privately controlled.

As a result Kansas, as other States with separated institutions, has exactly comparable courses of study in civil engineering, electrical engineering, and mechanical engineering. At the university, courses of study in mining engineering, architectural engineering, industrial engineering, engineering and administrative science, and chemical engineering have also been developed, while the agricultural college has curricula in flour-mill engineering and agricultural engineering.

The commission has studied the situation concerning the exact duplication of work in civil, electrical, and mechanical engineering and wishes to dismiss at once any suggestion that this duplication should be eliminated. During the current year there were registered in civil engineering at the university 179 students, at the agricultural college, 167; in mechanical engineering 100 students at the university, at the agricultural college 127; in electrical engineering at the university 171 students, at the agricultural college 303. (Table 7.) All of the apparatus was being used to its capacity. The classes were with slight exceptions of normal size or over. To accommodate at one institution all the engineering students that one finds at both institutions would mean practically to double the buildings and equipment. Since the registration in those fields has reached the present number at the two

institutions the question of increased expense to the State is practically negligible.

Moreover, it should be realized that even in civil engineering a working agreement has been reached between the two institutions which authorizes the university to develop fully highway engineering so far as it relates to cities and towns. The agricultural college, on the other hand, is given the function of developing highway engineering so far as it relates to the open country and the rural districts. This arrangement is a fair and natural distribution of this very important field.

Both institutions have small laboratories for testing highway materials. In view of the enormous importance of this field of work and the large amount of research to be done before roads of permanent character can be constructed, the State will have need of all the laboratory facilities at both the university and the agricultural college. Indeed, the State is doubtless only at the beginning of a great program of highway construction which, if it is to be of permanent character, should be accompanied by extensive research with highway materials. The State might well contemplate the building of a large State highway laboratory at the agricultural college. The university also should be encouraged to continue its research with building materials for urban districts and into general problems with highway materials.

The other engineering courses of study at the two institutions also for the most part follow the division between urban and rural districts. Mining engineering naturally falls to the university, where geology was early developed and where the geological survey of the State has for many years been located. Chemical engineering is not only a type of engineering peculiar to the urban districts, but it is entirely in place at the university, where there has been for years very strong work in chemistry. Industrial engineering and engineering and administrative science are recent developments in the engineering world, which perhaps come a little nearer the earlier ideal of the university in establishing professional engineering than any of the other specialized engineering curricula.

At the agricultural college the additional engineering curricula have largely followed rural needs. Agricultural engineering is a relatively new field of work, but it is fast demonstrating its place not only as service courses in farm machinery but as a four-year curriculum of work. Flour-mill engineering also meets a real need in a State as largely rural as Kansas and where this industry is bound to assume greater proportions as time goes on.

In connection with the other work in engineering the university, in 1913, as has been mentioned, developed a course of study in

architectural engineering. As an outgrowth of that curriculum the university also, in 1919, established a comparable course of study in architecture. The registrations in architecture and architectural engineering combined for the years 1913 to 1922 have been as follows:

1913	9	1918	35
1914	23	1919	43
1915	23	1920	60
1916	28	1921	59
1917	38	1922	62

ARCHITECTURE.

Courses in architecture have been given at the agricultural college for a number of years. In 1904 these courses were organized into a four-year curriculum. For several years the work in this field lagged, however, and it was not until a few years ago that stronger members of the faculty were added and the work developed to its present excellence. Reference to the statistical tables shows that the number of students registered in the course of study in architecture has been as follows:

1912-13	41	1917-18	9
1913-14	27	1918-19	23
1914-15	30	1919-20	41
1915-16	28	1920-21	52
1916-17	16	1921-22	62

At the present time 31 courses with a total of 89 semester hours of credit are listed in the catalogue for undergraduate instruction. Seven graduate courses with a total of about 28 to 35 credit hours are offered. Besides these courses the college also offers a course in rural architecture in the department of farm engineering; four undergraduate and three graduate courses in landscape gardening in the department of horticulture; and certain courses in design and interior decoration in the division of home economics. In the landscape gardening courses there have been enrolled during the semester just closed 130 students, chiefly those who are majoring in the department of horticulture.

At the present time the department of architecture is housed on the upper floor of the new wing of the engineering building in quarters that are commodious and very well adapted to the needs of the department. The equipment is good and the spirit of both faculty and students appears to be commendable.

The curriculum in architecture at the university grew out of the four-year course of study in architectural engineering which was established at Lawrence in 1913. The response to the curriculum in architectural engineering was so cordial and the demand for more

extensive work in architecture so pressing that on January 21, 1920, the board of administration granted the university authority to offer a curriculum in architecture leading to the degree of bachelor of science in architecture.

In the year 1921–22 there were registered 40 students in architectural engineering and 20 in architecture. The catalogue of the university for 1921–22 lists 21 courses in architecture, with a total of 57 semester credit hours. The department of architecture, however, depends in large part on the school of fine arts for its courses in freehand drawing, history of art, painting, and sculpture. The department of civil engineering offers a course in structural design. On account of the presence of these related courses in other departments and schools of the university, the total amount of work listed in the department of architecture at the university is naturally less than at the agricultural college.

The department of architecture has a number of well-lighted rooms assigned to it on the upper floor of the main engineering building. These quarters are fairly well adapted to this type of work but are by no means so pleasant as those at the agricultural college. The grade of work accomplished, however, is of high rank. On account of this fact, and because the department of architecture enjoys the opportunity to cooperate closely with a strong department of art in the school of fine arts, the university in 1920 was elected to membership in the Association of Collegiate Schools of Architecture, an honor which secures certain recognition for its graduates.

The commission has recognized the presence of four-year curricula in urban architecture at both the agricultural college and the university as constituting unnecessary and perhaps wasteful duplication. As has already been stated, Kansas is primarily a rural State, with but a single city containing over 100,000 population; three over 25,000; and 17 over 10,000 population. Under these circumstances it is clear that the demand for professional architects in Kansas is decidedly limited. Doubtless it is for this reason that, of the 25 living graduates in architecture at the university since 1916, 20, including 9 in Kansas City, Mo., are now located out of the State; and that of 54 graduates in architecture at the agricultural college since 1906, 26 are now located out of the State. Moreover, only about 50 per cent of the graduates in architecture at the agricultural college during the last 10 years have followed that profession. More recently nearly all of them have entered that field of work.

In discussing the question of duplication in architecture the commission wishes to state that little light is shed on the problem by the practice of other States which maintain land-grant colleges separated from the universities. In 13 such States—Alabama, Iowa, Kansas, Michigan, Mississippi, Montana, North Dakota, Oklahoma,

Oregon, South Carolina, Texas, Virginia, and Washington—it has been found that six universities give curricula in architecture or architectural engineering, or both; and that nine land-grant colleges offer curricula in one or both. Six of the land-grant colleges offer curricula in architecture and an equal number in architectural engineering. All six of the universities offer curricula in architecture and two of them, the University of Texas and the University of Kansas, have curricula in architectural engineering. From this it may be concluded that the separated land-grant colleges which give work in these two fields outnumber the separated universities; that curricula in architecture and architectural engineering are equally popular at the land-grant colleges, but that the universities have confined their attention chiefly to architecture.

In both types of higher institutions architecture has usually been closely associated with instruction in engineering, a fact which has prevented many people from appreciating that architecture is essentially a fine art. It is an art of design which of course must be developed to meet certain utilitarian purposes and in keeping with the principles of mechanical construction. The purpose of architecture is therefore to add to a technical knowledge of materials and construction principles that imagination which will result in interesting and beautiful as well as useful and well-constructed buildings. As with all art, it flourishes best in those places where the atmosphere of related arts such as sculpture and painting has been developed most fully.

As between the two institutions in Kansas there is no question but that this atmosphere has been [redacted] developed at the university than at the agricultural college. [redacted]hool of fine arts at the university has had a long and distinguished career. Music has, to be sure, always exceeded painting and drawing in popularity, but at the present time the latter is of especially superior quality, excelling anything along this line hitherto accomplished at the university. There is, furthermore, the Thayer art collection, valued at more than $150,000, and the collection of casts in the Greek museum which have served as a constant inspiration to students in this field. The university will doubtless remain the leader in all the arts so essential to the fullest development of architecture.

Moreover, it should be recalled that the university is naturally called upon primarily to prepare technical and professional graduates for service in cities and towns, while the agricultural college divides its interests between the urban districts and those which are either a part of or closely related to rural life. In accordance with this theory the university has developed courses in sanitary engineering, chemical engineering, municipal engineering, municipal government and business administration, while the agricultural college has turned its

attention to agricultural engineering, flour-mill engineering, highway engineering, and rural commerce, not to mention, of course, the varied fields of agriculture and veterinary science. This division seems all the more natural when it is realized that the university has considerably easier access to Kansas City and other cities in the State than the agricultural college, which is situated in the midst of the great agricultural section of the State.

This analysis of the situation concerning architecture at the two institutions shows that the solution of the problem is unusually difficult. Priority and present conditions in student enrollment undoubtedly favor the agricultural college. On the other hand, viewed as a problem of what institution is able permanently to offer the best opportunities and the most congenial relationship for the development of architecture, the position of the university is more sound. The commission believes that the State is not justified in supporting two departments of architecture. Therefore, inasmuch as the university is the natural center of education in the fine arts and because of the general division of functions at the two institutions, the commission is convinced that it is naturally more at home at the university.

On the other hand, it should be realized that the agricultural college has a duty equally as important, perhaps, on account of the neglect of art in the rural districts, more important in the development of rural architecture and landscape art. As yet training in this field of art has not been in great demand, but there were during the semester just closed 130 students in the various landscape courses, besides many others registered in the courses in rural architecture and interior decoration and design. The agricultural college, with its department of horticulture and its division of home economics, is the natural place for the development of this field of work. By so doing the agricultural college can perform a very valuable and much needed service to the rural population of the State.

In view of this situation the commission is convinced that the present duplication in urban architecture at the two institutions is unwise and that, on account of the equally large though undeveloped field of rural architecture in Kansas, the agricultural college should shift its architectural work to this field, leaving to the university the field of urban architecture.

MUSIC.

The school of fine arts at the university was established in 1891. Ever since that time the school has taken a prominent place in the life of the university, with music as its most popular department. Notwithstanding the fact that the department was for many years very poorly housed in old North College, it has steadily prepared through a series of years a commendable number of graduates with the degree of bachelor of music. At the same time the standards of work have

been raised until the music work of the University of Kansas now ranks with the best in the country.

The following table shows the number of degrees in fine arts (nearly all of which were in music) which have been granted at the university during the last decade:

1912	20	1918	13
1913	18	1919	6
1914	18	1920	13
1915	17	1921	9
1916	5	1922	11
1917	16		

At the agricultural college service courses in music have been offered for a long time to students who were majoring in other fields of work. About five years ago these courses were organized into a three-year course in applied music leading to a certificate in music. At the same time a two-year course in public school music was offered. In 1919 the three-year course was increased to four years and the degree of bachelor of music first offered. The following numbers of degrees have been granted: 1 in 1919–20; 3 in 1920–21; 1 in 1921–22. The registrations in music at the university and the agricultural college, respectively, during the year 1921–22 were as follows: (1) Major students in music, (*a*) university, 189; (*b*) agricultural college, 108; (*a*) students majoring in other departments who are studying music for credit (*a*) university, 61; agricultural college, 320; (3) students who are majoring in other departments who are studying music without credit, (*a*) university, 112; (*b*) agricultural college, 88; (4) special music students, (*a*) university, 50; (*b*) agricultural college, 23; (5) students below college grade, (*a*) university, 26; agricultural college, 77; (6) total, (*a*) university, 438; (*b*) agricultural college, 616.

From these figures it is evident that the university is concentrating its attention primarily on the 239 students who are specializing in music, while the department of music at the agricultural college is chiefly occupied with the 408 students of the college who are majoring in other divisions of the college.

This division in the character of music instruction at the two institutions, respectively, is in line with the commission's conception of the primary function of each institution in this field. The university has been and should remain the acknowledged leader in the fine arts, including music, and the commission is convinced that for the training of professional specialists in music the university should always be given first consideration. Any other policy would weaken the standing of a department which has reached its present excellence only after great difficulty and struggle.

Furthermore, the university shares with the agricultural college and the normal schools the obligation to prepare teachers of public-

school music for the schools of the State and also the duty of developing general service courses in music for students who are specializing in other departments of the university.

In suggesting that the State continue its policy of developing professional specialists in music at the university primarily, the commission does not wish to be understood as opposed to the development of music instruction at the agricultural college. On the contrary, music is a universal language, which has a message for people in all types of institutions. Its influence on young people for the development of culture, good taste, and refinement the commission believes to be invaluable and unmeasured. For this reason there should be from the kindergarten through the high school and in every institution of higher learning generous opportunity for students to participate in and enjoy the refining influence of good music. At the agricultural college, therefore, the commission believes that this extension of music throughout the whole student body should be the primary mission of the department of music, and it rejoices that at the college during the year just closed the department has in this manner come in contact with more than 400 students. This obligation, which has been so well fulfilled at the agricultural college, the commission wishes to point out as being a very different matter, though no less noteworthy public service, than the preparation of professional specialists. As at the normal schools, the agricultural college should devote itself primarily to music courses of general service nature and to the curriculum in public-school music.

Nevertheless, while believing that music instruction should by no means be regarded as a major function at the agricultural college, the commission is not willing to recommend that the four-year degree course in music begun there a few years ago should be abolished. Two other separate land-grant colleges—Colorado Agricultural College and the Washington State College—now grant bachelor's degrees for four-year courses in music. Moreover, the department at the agricultural college has so far been relatively inexpensive. The presence in these institutions of a few students who are planning to become professional artists has a stimulating musical effect on the whole student body. It was estimated at the beginning of the fiscal year just closed that the expenses of the department, including salaries and supplies but not including room space, would be $28,000, whereas the fees collected by the institution would total about $20,000. In view of these circumstances it would seem that so long as the agricultural college trains only a small number of students for degrees in music and so long as this work is regarded as merely incidental to the work of training music supervisors and developing widespread appreciation of music among the student body, the general principle already enunciated of developing curricula for professional music

specialists primarily at the university is in no wise vitiated. The commission commends this division of functions to the careful consideration of the board of administration.

JOURNALISM.

The University of Kansas was one of the earliest universities in the country to establish courses in journalism. Although courses were begun in 1903 the present department was not organized until 1911. The number of students registered in the department has been as follows: 324 in 1920-21; 318 in 1921-22. The number of juniors and seniors majoring in the department during the year just closed was 58.

In the current catalogue the university announced 21 courses in journalism, with 50 to 52 hours of credit, and two courses in printing, each with no credit.

The work in journalism at the university has always been regarded as of standard character among the schools and departments of journalism in the important universities of the country. The University of Kansas is therefore one of 12 higher institutions in the country that fulfill the requirements for membership in the Association of American Schools and Departments of Journalism.

The agricultural college was a pioneer in offering courses in printing for credit. These courses were established in 1874 and have been in continuous operation ever since, the longest period in which instruction in the subject has been given in any American college. In 1910 a professor of industrial journalism was employed, and in the following year a four-year curriculum leading to the degree of bachelor of science in industrial journalism was established. Since that time the number of persons majoring in the department has been as follows:

1911-12	8	1917-18	47
1912-13	12	1918-19	49
1913-14	22	1919-20	88
1914-15	16	1920-21	90
1915-16	37	1921-22	103
1916-17	61	1922-23	128

Including additional students from other divisions who take one or more courses in journalism the department serves about 360 students each year.

During the year just closed the department offered 21 courses in journalism for a total of 43 semester hours credit and 12 courses in printing for a total of 26 semester hours credit.

In order that students in the industrial journalism curriculum may have a fair working knowledge of some particular subject-matter field, they are required to take at least 18 hours in agriculture or some other major curriculum. During the past year students selected:

Agriculture, 32; applied and domestic art, 23; food economics and nutrition, 13; applied science, 11; engineering, 5.

The head of the department states that:

> The primary purpose of this curriculum (industrial journalism) is to prepare students for work on agricultural or industrial papers, or for specialized agricultural or industrial writing on other publications. In view of the fact that there are more than 500 agricultural journals, 2,300 trade or industrial journals, and a rapidly growing number of newspapers and magazines seeking specialists in these fields, there is an excellent opportunity for students receiving degrees in one of these fields.

In developing courses in industrial journalism the agricultural college has participated in a movement which is growing steadily in nearly all the land-grant colleges. According to statistics gathered for the year 1920-21 by W. A. Sumner, professor of agricultural journalism of the University of Wisconsin, the following number of students in industrial or agricultural journalism were being accommodated:

University of Wisconsin	287 in 8 courses.
University of Missouri	22 in 1 course.
University of Illinois	9 in 1 course.
University of Nebraska	31 in 1 course.
Ohio State University	50 in 1 course.
University of West Virginia	10 in 2 courses.

Figures for several of the land-grant colleges were as follows:

Kansas State Agricultural College	360 in 23 courses.
Iowa State College	300 in 24 courses.
Purdue University	25 in 1 course.
Oregon State Agricultural College	70 in 8 courses.
Oklahoma Agricultural College	70 in 5 courses.
Michigan Agricultural College	60 in 3 courses.
Colorado Agricultural College	20 in 1 course.
Washington State College	79 in 9 courses.
Pennsylvania State College	31 in 2 courses.
Massachusetts Agricultural College	24 in 2 courses.

Of the 49 land-grant colleges in the country, only 9 have no facilities at all for instruction in journalism; 24 of the 49 have one or more courses in agricultural journalism. The Kansas State Agricultural College and the Iowa State College, however, are the only institutions which have four-year curricula in industrial journalism leading to the bachelor's degree, although the work along these lines has been considerably developed at the Washington State College and the Oregon Agricultural College. With the exception of Kansas and Iowa, courses in agricultural journalism are offered only as service courses in all the land-grant colleges.

The commission is of the opinion that the conception of the field for industrial journalism at the agricultural college is sound. The agricultural and trade journals very much need the uplifting in-

fluence of young men and young women who have been trained adequately for these special fields. The demand for trained people in these lines of work has in recent years been large and increasing, and the commission feels that the college is to be congratulated on being one of the two or three leading institutions in the country to discern and map out this work.

The commission is convinced, however, that the State would be unwise to duplicate curricula in this field of work. The university should not parallel the work in industrial journalism, nor should the agricultural college train young people for general newspaper work. The field of journalism at the agricultural college grows out of its major work in agriculture, home economics, and engineering, and should be confined chiefly to training students for doing work on agricultural, trade, and technical journals and to special feature writing in these fields for the magazines and newspapers. The university, on the other hand, should be responsible for all courses leading to general newspaper work. If the two institutions will keep this division of functions clearly in mind each will continue to fill a very important function which in no wise duplicates the field of the other.

In connection with the large number of sources in printing, the commission is of the opinion that the agricultural college is unwise to give so many courses for college credit for work that is essentially trade or vocational in character.

EDUCATION.

For many years at the university the department of education was included in the college of liberal arts and sciences. In 1909 it was organized as a separate school. Since that time there have been in the school the following enrollments, most of which have been duplicated in the college of liberal arts and sciences:

1913	262	1918	316
1914	167	1919	262
1915	236	1920	337
1916	322	1921	356
1917	333	1922	391

The school of education attempts to perform five main functions in undergraduate work: (1) Train school superintendents and principals; (2) train high-school teachers; (3) prepare special teachers of music and drawing in a two-year curriculum to meet the certificate requirements of the State board of education; (4) prepare elementary school teachers in a two-year curriculum to meet the three-year certificate requirements of the State board of education; (5) prepare vocational teachers under the Smith-Hughes Acts in home economics. In addition to undergraduate work of this character a

considerable amount of graduate work is given by members of the education staff.

The commission is aware of the great service which the university has rendered to the State in the training of teachers for the secondary schools, and it is convinced that the university atmosphere and the university curriculum, with its combination of subject matter and professional courses, are conducive to the most thorough and most satisfactory preparation for teaching in the high schools. For this reason it seems evident that the university should continue to exercise that leadership in the preparation of high-school teachers, particularly for the larger and well-organized secondary schools, which may naturally be expected where there are the most complete opportunities for the development of professional and subject matter courses preparatory to high-school teaching.

The commission is of the opinion that the university will be unable to fulfill entirely its obligation for the training of high-school teachers with the present inadequate facilities for practice teaching. The regulations of the State board of education do not require practice teaching of prospective teachers in the high schools. This condition taken in conjunction with the fact that the university possesses only a small frame building for a training school accounts for the fairly large proportion of prospective teachers who graduate from the university without having had any practice teaching. It is impossible to estimate this number exactly, but it runs from one-third to one-half the total number of graduates who go into teaching. The commission is convinced that before the school of education can do its work in the most effective and satisfactory manner there should be erected a training school building sufficiently large to care for at least 200 students. The commission suggests that steps be taken to do this at the earliest possible time.

The function of the university in the preparation of school principals and superintendents is even more distinctive than that of preparing high-school teachers, which after all the university shares with the normal schools and other higher institutions in the State. Since the training of school administrators is becoming more and more of graduate character, the university, which is practically the only institution in the State to which educators may look for advanced and graduate work in psychology and education, naturally has a very important obligation to fulfill and one which will be of increasing importance as time goes on. The commission therefore commends the formation of the Bureau of School Service at the university as a definite means of rendering service to educational administrators throughout the State. Everything should be done to enable the school of education to fulfill this function acceptably.

The functions of the agricultural college in the training of teachers are based primarily on the three original functions of the college, namely, agriculture, home economics, and engineering. It seems evident, therefore, that, since agriculture is taught practically only at the agricultural college, and home economics is taught there much more extensively than at any other institution in the State, the agricultural college should be the leader in the preparation of teachers for these two specialized fields of high-school teaching, just as the university is in all the other lines of preparation for teaching in the secondary schools. In addition, the agricultural college is prepared to train high-school teachers of science, public-school teachers of music in the two years' curriculum established by the State board of education, and vocational teachers of agriculture, home economics, and trades and industries.

At present education is a department in the division of general science. It is chiefly engaged in teaching the courses needed by prospective teachers to fulfill the 18 semester hours in education required by the State board of education for a certificate. Students do some practice teaching in the local Manhattan high school and also in the vocational school of agriculture. Additional practice teaching facilities would greatly improve the quality of teacher preparation at the agricultural college. In order better to fulfill its functions it seems likely that the department could be more effective if it were expanded into a division on a par with the other divisions in the college, such as agriculture, home economics, and engineering.

HOME ECONOMICS.

As at all other land-grant colleges, with the exception of the Massachusetts Agricultural College and certain of the southern institutions, the Kansas State Agricultural College has developed home economics as one of its chief major lines of work. Indeed, this institution was one of the first land-grant colleges in the country to offer instruction in this subject. A full four-year professional curriculum was first organized in 1897, and three years later the degree of bachelor of science for work in this field was announced. It will be seen, therefore, that home economics as a major line of work at the agricultural college is 25 years old. During the period from 1912–13 to 1921–22 the total registration of students majoring in this division has decreased from 749 to 552. There are also a number of young women, particularly in recent years, registered in the general science courses who take one or more courses in home economics.

There is a single four-year curriculum leading to the bachelor's degree. The courses in this curriculum during the first two years are prescribed. In the junior year 9 semester hours are elective; in the senior 17 semester hours. Students are given the opportunity

to select these additional hours from groups of electives containing specialized courses, or they may take a part of these electives in these groups and the remaining ones in advanced courses of related subject matter. The groups of courses are as follows:

(1) Advertising, buying, and salesmanship.
(2) Certificate requirements for vocational home economics teaching.
(3) Clothing and textile work.
(4) Designing and decorating.
(5) Food and nutrition.
(6) Home making (two groups).
(7) Institutional management.
(8) Lecturing and demonstration.
(9) Sanitary science; food and market inspection.
(10) Social-service work.
(11) State requirements for general teaching.

In addition to the four-year curriculum, there is also a five-year curriculum combining home economics and nursing leading to the bachelor of science degree and a diploma in nursing. During the first two years of this course of study the student spends her time at the college. The third and fourth years are spent at the nursing school of a local hospital. During the fifth year students have certain required and elective courses at the college which complete the work of the curriculum.

The division also devotes some time to giving courses of vocational character to students in the secondary school of agriculture, the one-year curriculum in lunch-room management, and the housekeepers' course of 15 weeks.

On the whole the equipment for courses in home economics at the agricultural college is good. The commission, however, was impressed with the fact that for the fullest development of this work additional facilities and equipment are very desirable. It is scarcely possible to give a high grade of graduate work under present conditions.

Home economics was first introduced as a department in the college of liberal arts and sciences at the University of Kansas in 1910. In accordance with the rules of the college of liberal arts and sciences students who wish to major in home economics must offer a minimum of 20 semester hours and a maximum of not more than 40. During the year 1921–22, 70 juniors and seniors are registered for major work in this field. Of this number, 35 expected to go into teaching, 10 into other professional work, and 25 took the course of study for general purposes. Besides the students who are majoring in this department, there were 292 other students in the university who took one or more courses in home economics. The total number of individuals enrolled during the year was 362, or nearly one-third of the young women at the university.

According to the plans of the department three types of major curricula will be offered to students during the forthcoming year: (1) General curriculum without chemistry; (2) general professional and teacher-training curriculum with chemistry; and (3) dietetics curriculum.

In establishing and developing work in home economics the University of Kansas has pursued a practice which has become almost universal in the important separated State universities. The University of Michigan offers no home economics of any kind, and the University of Oregon gives only service courses; but other separated State universities such as Iowa, Washington, Texas, Montana, Colorado, Indiana, North Dakota, and South Dakota include a department of home economics in the division of arts and sciences, with the opportunity to pursue a major in that field. Several of them confer the degree of bachelor of science in home economics.

The curricula in home economics at the separated State universities are usually designed to meet the needs of two classes of students; (1) Those who expect to teach in the high schools; and (2) those desiring general knowledge of the subject as a part of their liberal education and for home-making purposes.

In both of these fields the separated State universities seem to be on undebatable ground. The universities are the leaders in preparing teachers for the secondary schools, and it would be unwise to throw many restrictions about them in the preparation of high-school teachers. Certainly in Kansas whatever reasons exist for offering home economics as a major course of study in the normal schools are of even more weight at the university.

Furthermore, students of higher education are now nearly a unit in agreeing that wherever young women are in college there should be ample opportunities for them to secure courses in home economics for general home-making purposes. For this reason it is now becoming decidedly unusual to find a college of any consequence, whether publicly or privately controlled, that does not offer courses in home economics whenever the young women students have reached any considerable number. There are at the University of Kansas about 1,200 young women who will be future home makers in Kansas. There can be no doubt that these young women should have ample opportunity to prepare themselves for home duties as well as cultural and citizenship obligations.

On the other hand, the State would be extremely unwise to permit exact duplication of all the professional studies in home economics at the university. The agricultural college, by reason of the character of the institution and by reason of its priority, is entitled to the same leadership in this field that should be accorded to the university in certain other fields of work. It would seem to the commission, for example, that the agricultural college should be given a clear field

for the exclusive development of all other specialties in home economics as well as for graduate work in this field. The only exception to this statement is such nutrition and dietetics research that naturally forms a part of the work of the newly established child research bureau at the university. The location of this bureau at the univeristy was a perfectly natural action in view of the close contact such a bureau needs to maintain with the medical school of the university.

In view of this situation the commission is convinced that the major curricula in home economics at the university should be confined to general cultural purposes and to the training of teachers of secondary schools, together with such research in nutrition and dietetics as naturally is a part of the bureau of child research.

Before dismissing this subject, however, the commission feels that it should record its disapproval of the attempt at the university to offer a major in home economics without chemistry as a prerequisite. Students who are not willing to take courses in general chemistry, qualitative analysis, organic chemistry, and the chemistry of foods as prerequisites to the courses in domestic science should not be allowed to major in this field, either in the general or the teacher-training curriculum. The interests of these students are practically the same as those of that large group of young women who, before their graduation, elect a small number of courses in home economics. The fact that young women who have had no courses in chemistry are permitted to pursue such courses as food and nutrition and economic uses of foods along with those who have had adequate preliminary training in chemistry necessarily very seriously lowers the grade of class work that can be accomplished. The commission understands the very great value of elementary courses in home economics for the general student who has not had preliminary training in chemistry, but great care should be taken to separate the two types of students in order that each may perform the grade of work which may reasonably be expected of it.

In order to provide adequately for the training of teachers in home economics at the university, there should be added to the department courses in millinery, institutional management, interior decoration, and house planning. Also the laboratory facilities are as yet very inadequate for any purpose except the training of the general student. If the university wishes to offer a major in this field for the general students in arts and science or for the training of teachers, improved facilities are needed at once.

LIBERAL ARTS AND SCIENCES.

Reference has already been made to the fact that, at the time the university and the agricultural college were founded, instruction in

the usual university curricula, including liberal arts and sciences, was much more definitely organized than instruction in agriculture, home economics, or mechanic arts. With tremendous agricultural areas still unoccupied by settlers, making scientific agriculture appear unnecessary, with organized instruction in home economics wholly undeveloped, and with little immediate need either of artisans or engineers, there were very few people either in the general population or even in the land-grant colleges themselves who had a definite conception of the field of service of the land-grant college as against the well-known university curricula. Consequently, there was in the earlier years of the separate land-grant college an inevitable tendency to reproduce the usual arts and science curriculum. At the Kansas State Agricultural College, as at all similar institutions, there were repeated complaints that the institution was not using its funds for the purposes intended in the Morrill Acts and in the laws of the State and regulations of the board of regents. For example, in 1873 the board of regents announced that it was the object of the institution—

> to impart a liberal and practical education to those who desire to qualify themselves for the actual practice of agriculture, the mechanic trades, and industrial arts. Prominence shall be given to agriculture and these arts in the proportion that they are severally followed in the State of Kansas. Prominence shall be given to the several branches of learning which relate to agriculture and the mechanic arts, according to the directness and value of their relation.

Since those early days the major curricula of the land-grant colleges, as mentioned in the Morrill Acts, have become practically as well organized as other fields of higher education. "Mechanic arts," has been interpreted by the land-grant institutions to be practically the same as engineering at the universities. Through research at the agricultural experiment stations the area of agricultural knowledge has been extended and scientifically organized. Home economics instruction has by no means reached the stage of development attained by engineering and agriculture, but important progress has been made in outlining the technique of home economics instruction and the applications to which it may be put.

The remarkable development of these technical curricula in recent years has been based very largely on the progress which has been made in the basic sciences underlying these fields of instruction. Engineering, agriculture, and home economics are the diverse applications of mathematics, chemistry, physics, physiology, biochemistry, botany, zoology, and bacteriology to the particular problems raised in each of these major divisions of instruction. For this reason technical educators representing these several divisions are now a unit in holding that the quality and success of instruction in agriculture, engineering, and home economics depends on sound training in the basic sciences.

Moreover, as the social significance of engineering, home economics, and agriculture came to the front, educational administrators realized that graduates in these fields should somehow receive not only the necessary technical instruction but at the same time such instruction in the application of economic science as will enable them to become leaders and managers in their respective professions.

Finally, in part because our system of secondary education leaves much in the way of cultural education for the higher institutions to supplement and in part because of the universal yearning for things that lift people out of the deadly routine, whether in the office, on the farm, or in the factory, modern educators insist that students in engineering, home economics, and agricultural curricula, which, contrary to the curriculum in medicine and for the most part to that in law, are based merely on high-school graduation, should receive a liberal amount of instruction in arts and sciences. The combination of applied science with basic sciences and with cultural and citizenship subjects is therefore intended not only to prepare young men and women to succeed in some definite technical work but also to lead a successful and well-rounded life.

It becomes apparent therefore that no separate land-grant college can afford to deny to its students the contacts with arts and science subjects which students of agriculture, home economics, and engineering receive at universities such as Missouri, Illinois, and Wisconsin, which include the land-grant colleges.

Moreover, it should be realized that the development of the three original functions of the land-grant colleges depends in the future as in the past on research in the basic sciences underlying agriculture, home economics, and engineering. A State is wise, therefore, if it encourages research and graduate work at a separate land-grant college not only in the applications of the three major lines of work but in the basic sciences on which they depend. For purposes of economy in State expenditures for higher education and in order to be of the greatest use to agriculture, home economics, and engineering, the State agricultural college should, however, be expected to devote its research and graduate work primarily to those fields of the basic sciences that are most closely related to the three original functions of the college. Any other policy would naturally lead to confusion with the advanced and graduate work in the same subjects which can be most advantageously conducted at the university.

It is unnecessary to develop extensively the function of the university in the liberal arts and sciences. The work in this field is the very heart and center of the university and institutions of comparable character. From an educational point of view there should be at the university no limitation in the development of advanced and graduate work save perhaps the portions of the basic sciences that are closely related to the three major functions of the agricultural

college. Even here, since engineering at the university is recognized on a basis of equality with the agricultural college and since research in certain problems in nutrition can best be carried on in connection with the medical school, it is clear that the university shares with the agricultural college large and important obligations for the development of research in these lines of work and the sciences basic to them. An example of such a division in research function has already been referred to in the discussion concerning research in highway engineering.

The obligation of the university, therefore, in the development of the sciences is inclusive, with certain exceptions, rather than specific as at the agricultural college. In the realm of the pure sciences there are innumerable fields of research and investigation, in many instances remotely connected with any known application, which the university and other institutions of similar character are under obligations to promote with vigor and proper encouragement.

In the realm of the liberal arts, where advanced courses and research work are not necessary in the curricula for technical and scientific students at the agricultural college, the commission holds that it would be unwise to permit duplication in advanced courses and research work. For this reason it would seem that the present practice of not granting the bachelor of arts or the master of arts degree at the agricultural college should be adhered to.

The commission takes this view because it is convinced that with teachers who are inspired with true professional spirit and deep devotion to the mission of teaching little or no harm in the quality of instruction in liberal arts at the agricultural college can possibly result. Moreover, it should be recalled that at higher institutions there is a deep and constant obligation to wise economy as well as to extended educational programs. The State has taken the step of separating the university and the land-grant college, and in the interest of State economy it must accept the results, among which is the location of certain types of graduate work at one institution and certain types at the other. In this manner advanced and research work, which is too expensive to be duplicated freely, will be adequately recognized at either the university or the agricultural college.

In this discussion of the function of the university and the agricultural college, respectively, with respect to liberal arts and sciences, the commission has endeavored to take a generous attitude toward the agricultural college. It is, however, not the commission's intention to recognize anything like equal obligations in this field at the two institutions. The leadership of the university in the general field should be unquestioned, and in the efforts which the State should make for thorough and extended instruction and research in liberal arts and sciences the university should receive the same primary consideration that the agricultural college enjoys, for example, in the field of home economics.

Chapter V.

TEACHERS' CERTIFICATES AND THE PREPARATION OF TEACHERS IN KANSAS.

TEACHERS' CERTIFICATES IN KANSAS.

There is a considerable variety of teachers' certificates issued in Kansas. Of primary importance in the rural schools are the first, second, and third grade certificates issued by the county boards of examiners. The law governing the issuing of these certificates requires candidates for the third-grade certificates to pass examinations in the usual 11 elementary school subjects and in elementary general science, English classics, and the principles and methods of teaching. A third-grade certificate is issued for one year, but not more than two third-grade certificates may be obtained.

Candidates for the second-grade certificate are required to pass examinations in the elements of music, besides the examinations required for the third-grade certificates, and to show that they have completed a one-year course in an approved high school or passed examinations in at least three of the subjects required during the first year of high school. The certificate is good for two years. Additional second-grade certificates without limit may be secured through examinations.

First-grade county certificates are issued to persons who have taught not less than 14 months, who pass examinations in English history and elementary physics, in addition to the subjects required for the second-grade certificate, and who in addition show that they have completed a two-year course of study in an approved high school or passed examinations in seven units required in those two years. First-grade certificates are good for three years and are renewable, provided the holders attend county normal institutes and perform professional work prescribed by the county superintendent.

The second important class of certificates is issued by the State board of education, and hence are called State certificates. The law provides that three-year elementary-school certificates may be issued to persons who hold first-grade county certificates or who have certificates issued by examining boards in cities of the first and second class, provided these persons show that they have completed a four-year course of study in an approved high school and in addition have completed a two-year course of study in a normal school,

college, or university, or, in lieu of this two-year course, have had four years of successful teaching experience. These certificates are renewable for three-year periods, or they may be made permanent by showing successful teaching experience.

The State board of education also has authority to issue what are known as normal-training teachers' certificates. These certificates are the result of a law passed by the State legislature in 1909, which provides an annual State subsidy of not more than $500 to each high school approved by the State board of education to give a normal-training course. Each normal-training high school may also secure an additional sum not exceeding $500 by instituting courses in the elements of agriculture and domestic science. The total amount appropriated annually by the State for these purposes is $135,000.

According to the provisions of a law passed in the last session of the legislature, accredited high schools which secure these subsidies for normal-training courses shall have in regular attendance during the fourth year in the normal-training courses at least four students each semester, and the following-named subjects are required for the fourth year high-school course: American history one year, and psychology, methods and management, arithmetic, reading, grammar, and geography, each, one-half year.

The State board of education has also prescribed 8½ of the 12 units required in the first three years of the normal-training course of study in the high schools. No practice teaching is required or expected, but each normal-training student is required to make at least 12 observational visits to elementary schools each semester.

Graduates from the normal-training course of study who pass State examinations in psychology, methods, management, arithmetic, geography, grammar, and reading are given teachers' certificates good for two years in the elementary schools. These certificates may be renewed for two-year periods by showing successful teaching experience and the completion of 8 semester hours of residence work at a standard normal school, college, or university. Holders of normal-training certificates which have been renewed one or more times may secure permanent normal-training certificates, provided they have taught continuously and successfully for four years. A year's attendance at normal school, college, or university may be substituted for one of these four years.

A third class of certificates to teach in the elementary schools of Kansas is issued by the three State normal schools. According to the law, the normal schools may issue one-year certificates to graduates of their teacher-training high schools or to persons who have finished eight hours of residence work; three-year certificates to persons who complete the freshman course prescribed by the faculty

and approved by the State board of administration; and life certificates to persons who complete two years of work above the high school. These life certificates are good for teaching not only in the elementary schools, but also in junior-high schools and two-year high schools. These courses of study must also be approved by the board of administration.

The normal schools may also issue special certificates to teach manual training, domestic science, agriculture, commercial subjects, drawing, music, or other occupational subjects upon the completion of two-year courses of study prescribed by the respective institutions and approved by the State board of administration.

Finally, it should be remembered that the first and second-class cities in the State, which practically have full charge of their own schools, certificate elementary school teachers according to their own standards and requirements, which may or may not follow closely those established by the State board of education and by the normal school.

The State board of education has been given exclusive authority to establish standards relating to administration, course of study and instruction in the high schools, and to accredit high schools in accordance with these standards. All persons who teach in four-year accredited high schools anywhere in the State are required to hold high-school teachers' certificates issued either by the State board of education or by one of the normal schools. Accordingly, for this purpose, the State board of education issues to the graduates of accredited colleges who have completed 18 hours of professional work in education a three-year certificate which after two years of successful teaching is renewable for life.

In accepting the provisions of the Federal Smith-Hughes Act in 1917, the State legislature authorized the State board of education to supervise the vocational work in agriculture, home economics, and trades and industries in Kansas. The following institutions have accordingly been approved for the preparation of vocational teachers: Kansas State Agricultural College, teachers of agriculture and home economics; University of Kansas, teachers of home economics; State Manual Training Normal School, trades and industries. Students who complete the vocational courses of study at these institutions are certified to teach in the Smith-Hughes schools.

The bachelor of science in education diploma conferred by the normal schools is a life diploma to teach in any of the public schools, including both elementary and secondary schools. Also, as has already been stated, the normal schools have the right to issue special certificates to teach manual training, domestic science, agriculture, commercial subjects, drawing, music, or other occupational subjects upon the completion of courses of study approved by the State

board of administration. All the normal schools have established two-year curricula for this purpose. The certificates are valid for three years in any high school.

The relative importance of the several kinds of State certificates issued to teachers may be seen from the following table which, it should be noted, does not include county certificates or certificates issued by the normal schools. The table applies to the biennium 1918-1920:

Certificates issued by the State board of education.

Life certificates, renewal of the three-year certificates renewable for life	730
Three-year certificates renewable for life, requiring the completion of at least a four-year college course	1,202
Three-year certificates renewable for three-year periods, requiring the completion of at least a four-year college course	218
Permanent certificates valid in any schools	136
Three-year certificates renewable for three-year periods, requiring the completion of at least a two-year college course	513
Special certificates, requiring two years of college training or an acceptable equivalent	499
High-school life certificates, issued under the provisions of the laws of 1915 and laws of 1919	38
Temporary certificates, requiring two years of college training or an acceptable equivalent	624
Elementary certificates, requiring four-year high-school course, a first grade county or city certificate, and a two-year college course or four years of successful experience in teaching	433
Permanent certificates valid in elementary schools	181
Normal-training certificates, requiring graduation from the normal-training course in accredited high schools, approved for this purpose by the State board of education, and passing the required State examination	2,660
Total	7,234

THE PREPARATION OF TEACHERS IN KANSAS.

Some idea of the effect of the Kansas laws regarding the certification of teachers may be had by referring to the accompanying tables, which show the preparation of the elementary and high-school teachers, respectively, for the three years 1919, 1920, and 1921. In 1920, out of a total of 7,624 teachers in one-room schools, only 176, or 2 per cent, were graduates of normal schools; 5,337, or 70 per cent, were graduates of high schools; 769, or 10 per cent, had attended high school from one to three years, and the training of 342, or 18 per cent, was not recorded.

Some statistics gathered by the Kansas State Normal School for the year 1921-22 confirm the data for the previous years. According to these figures there were in the one-room schools no college graduates; 290 (3.6 per cent) normal-school graduates; 4,961 (62.2 per cent) high-school graduates; and 2,730 (34.2 per cent) who were not high-

school graduates. Of these teachers, 2,994, or 39 per cent, were without previous teaching experience.

The figures for 1919, 1920, and 1921 were as follows:

Preparation of elementary and grade teachers.

Teachers.	Graduates of college or university.			Graduates of normal school.			One or more years in college.			One or more years in normal school.			Graduates of high school.			One, two, and three years in high school or academy.		
	1919	1920	1921	1919	1920	1921	1919	1920	1921	1919	1920	1921	1919	1920	1921	1919	1920	1921
Rural school teachers	....	....	....	290	176	75	....	....	....	....	....	....	4,971	5,337	4,507	824	769	528
Grade teachers, two or more teacher-schools [1]	160	95	86	304	287	101	211	260	139	268	339	321	1,147	1,556	1,169	....	....	....
Grade teachers, second class cities	115	104	107	377	372	412	159	260	259	269	349	345	550	608	576	....	....	....
Grade teachers, first class cities	118	136	139	243	340	441	118	150	160	359	339	420	390	298	332	....	....	....

[1] Schools under the jurisdiction of the county superintendent of schools.

Preparation of high-school teachers.

Teachers.	Graduates of college or university.			Graduates of normal school.			One or more years in college.			Graduates of high school.		
	1919	1920	1921	1919	1920	1921	1919	1920	1921	1919	1920	1921
Two-teacher schools or more [1]	877	1,214	606	463	557	314	127	207	223	58	276	89
Cities of second class	536	606	631	125	127	165	61	90	113	19	19	11
Cities of first class	192	268	320	41	59	92	18	46	62	9	6	19
County high schools	169	129	156	35	33	34	24	17	25	14	32	3
Total	1,774	2,217	1,713	664	776	605	230	360	423	100	333	122

[1] Schools under the jurisdiction of the county superintendent; there are duplications in the figures for the year 1920.

Let us compare this situation with the preparation of grade teachers in cities of the first and second class. In 1921 there were 3,191 such grade teachers. Of this number, 246, or 8 per cent, were graduates of college or university; 853, or 27 per cent, were graduates of normal schools; 419, or 13 per cent, had completed one or more years in college or university; 765, or 24 per cent, one or more years in normal schools; and 908, or 28 per cent, were graduates of high schools. Of the total number, 72 per cent had received one year or more of training beyond the high school.

In the first and second class cities and in the county high schools there were in 1921, 1,631 high-school teachers. Of this number 1,107, or 68 per cent, were graduates of college or university; 291, or 18 per cent, were graduates of normal schools; 200, or 12 per cent, had attended one or more years in college, and 33 were graduates of high schools.

These statistics show very clearly that the one-teacher schools in Kansas are being taught by teachers with only high-school preparation; that in the two-teacher schools the grade work is being taught by teachers only one-third of whom have had one or more years beyond high-school graduation. Approximately one-half of them are merely high-school graduates. In the high schools of the State, on the other hand, more than two-thirds of the teachers are graduates of colleges and universities.

The preparation of the elementary school teachers is also indicated by the character of the certificates which they held. The following table for the years 1919 and 1920 makes this clear:

Grades of certificates held by teachers employed.

Certificates.	In 1919.	In 1920.
State certificates:		
In one-teacher schools	925	1,068
In two (or more) teacher schools (graded)	772	778
In high schools	1,522	1,618
Normal training certificates	2,995	3,154
County certificates:		
First grade	1,682	1,554
Second grade	2,445	2,285
Third grade	944	1,088
Total	11,285	11,545

The statistics of the State department of education for 1920 also show that of the 7,624 one-teacher schools, 2,294, or 30 per cent, were taught by persons with no previous teaching experience.

The commission has of course not been asked to pass on the effectiveness of the teacher training outside of the five higher institutions. In a general way, however, it feels called upon to state that in its opinion the turning over of the training of rural school teachers so completely to the high schools is quite unfortunate. Without attempting to evaluate normal training in the high schools of Kansas, it may be said from the experience of other States that this method of training teachers in no way compares with the effectiveness of one or two years of normal training built on high-school graduation. Furthermore, it even acts as a permanent handicap to the normal schools to develop fully the training of teachers for the elementary school field.

In this connection it may be interesting to point out that, according to the statistics for high schools issued by the Bureau of Education for 1917–18 (the latest statistics for high schools issued by the bureau), Kansas had 4,210 high-school students enrolled in normal training courses. This number is far in excess of any other State

in the Union. The other important States follow in order: Iowa, 2,758; Nebraska, 2,698; Massachusetts, 1,784; Illinois, 1,641; Missouri, 1,481; New Jersey, 1,238; California, 1,063; Minnesota, 1,046; Oregon, 1,020. All the other States in the Union have each less than 1,000 high-school students in normal training courses. Fourteen of them have less that 100 such students.

As is made clear by the statistics which have been quoted concerning the preparation of teachers in Kansas, the cities and towns are no longer satisfied with grade teachers who have had only high-school training. The commission believes that the State ought not to be satisfied to have its rural schools taught by teachers of any less education than that which the city school teachers receive. Education is primarily a State obligation, and the legislature should respond to the need of raising the qualifications for teachers of the elementary schools in Kansas. The statistics show that 82 per cent of the rural school teachers in 1920 had attended high school at least one year, while the training of the other 18 per cent was unrecorded. The commission believes that Kansas should at once adopt a law making one year of high-school training a requirement for elementary school teachers. In two or three years this requirement should be raised to two years of high-school work, and so by similar progressive steps until it includes at least two years of normal training above high school. The State can not afford to allow its future citizens, whether living in cities or in the country, to be taught by persons with inadequate preparation. The money which is spent on good schools is the best personal and community investment which any property owner can make.

Similarly, with reference to the preparation of high-school teachers. The present requirements concerning the preparation of teachers who teach academic subjects in accredited four-year high schools could perhaps be improved somewhat, but it is fairly adequate. The qualifications for teachers in the two-year high schools, however, ought to be raised; and particularly the two-year curricula at the normal schools for the preparation of special teachers of agriculture, home economics, music, and other vocational subjects is lamentably low. The teacher of the special subjects should by all means have preparation equivalent in quantity and quality to that of the regular high-school teachers. The commission is convinced, therefore, that these curricula for the preparation of special teachers should be increased to three years at once and within a short time to four years. Some suggestions as to how this should be done will be found later in the report.

A NEW NORMAL SCHOOL?

The attention of the commission has been drawn upon several occasions to the possible need of another normal school in Kansas. Under the present laws concerning the training of teachers there seems no justification whatever for establishing another normal school. To be sure, the normal schools are all greatly crowded during the eight and half weeks' summer sessions, but at all other times of the year they are fully capable of taking care of all the students that are likely to enroll for several years. During the first and second semesters, exclusive of special students, training school pupils, and the short spring term students, there were in attendance at one time only about 900 students at the Kansas State Normal School, about 600 at the State Manual Training Normal School, and about 250 at the Fort Hays State Normal School. At the State Manual Training Normal School, it will be remembered, a considerable proportion of the students were vocational students. The normal schools, therefore, except during a few weeks in summer, are by no means as crowded with students as they should be.

To establish an additional normal school or normal schools with the present teacher-training requirements would probably result in an institution of lower standard than it should be. The commission is convinced that the normal schools have struggled against great odds to raise the standard of preparation. This is no time to invite a lower standard of normal school instruction. Indeed, as will be pointed out elsewhere, there are a number of things which may very well be done to raise the standard.

On the other hand, if the State decides to take the very desirable step of raising the standard of teacher-preparation for the grade schools gradually to two years of normal school instruction, it may very well contemplate the establishment of at least one additional normal school. As has been stated elsewhere, the commission hopes that steps of this character will be taken, but until the State is aroused to the necessity of this action, the establishment of another normal school would appear to be unnecessary, expensive, and fraught with certain danger to educational standards.

Chapter VI.

THE NORMAL SCHOOLS.

CURRICULA.

In accordance with the laws governing the granting of certificates, the State normal schools have established curricula leading to a one-year teachers' certificate. The requirements for this certificate may be fulfilled by graduation from the normal training course of study in the training high school or by completing eight hours of college work (in addition to physical education) in the spring term or the summer session. The latter must be based on graduation from an accredited high school.

Three-year certificates are issued for the completion of a one-year curriculum based on high-school graduation. Life certificates may be secured by fulfilling the requirements of two-year curricula. Special certificates valid for three years are issued for the completion of two-year vocational curricula in agriculture, home economics, commerce, music, drawing, manual training, and physical training. These certificates are valid both in elementary and high schools and may be renewed for additional three-year periods by the completion of one year's additional work for each period. Graduation from any four-year course of study at the normal schools entitles students to teach for life in public schools, both elementary and secondary.

The effect of the certificate requirements in Kansas is reflected in the character of enrollments in the normal schools. (Tables 8 and 9.) At the Kansas State Normal School, for example, there were registered during the year just closed 175 juniors and seniors, most of whom doubtless at graduation intended to enter high-school teaching. There were 241 sophomores, part of whom will leave at the end of their second year with their life certificates or special three-year vocational certificates, while the remainder finish a four-year course. There were 474 freshmen, part of whom will leave at the end of one year with their three-year certificates; part of them will secure life certificates or special certificates at the end of their sophomore year, and part of them will finish a four-year curriculum.

In addition to students in regular attendance, there were 182 students above high-school grade who attended the 8½ weeks spring term. All but 12 of them were registered as freshmen. Doubtless, practically all of them were fulfilling the requirements to secure a one-year State certificate.

Finally, there were 2,119 students above high-school grade in the 8½ weeks summer session of 1921. Nearly three-fourths of these students were classified as freshmen and were consequently also fulfilling the school's requirements for one-year State certificates.

The character of the enrollment at Emporia is duplicated almost exactly at Hays and Pittsburg.

In outlining the requirements for teachers' certificates in Kansas and in mentioning the types of enrollments at the normal schools, the commission has intended to call attention to the variety of teacher preparation which the normal schools are attempting to give. In the first place, they serve the rural schools in the following ways: (1) The 8½ weeks spring term and the 8½ weeks summer session curricula both of which lead to the one-year teachers' certificates; (2) the one-year curriculum which leads to the three-year teachers' certificates. Both of these certificates are used almost exclusively in the rural schools. Otherwise, as has already been stated, there is little demand for rural teacher preparation in the normal schools and consequently little attempt to meet the needs of rural teachers. Under these circumstances the normal schools, which ought to be training thousands of young people annually for the rural schools, have through the summer and spring terms and in the one-year curriculum only a moderate influence on either the schools or teachers. This work is good so far as it goes, but it is a very ineffective and unsatisfactory way of building up the preparation of rural school teachers.

In order that the attitude of the commission may be made more clear on this point, it takes pleasure in quoting from a resolution passed by the rural section of the Department of Superintendence at its meeting in March, 1922, at Chicago, as follows:

> The safety of society demands a new kind of rural school suited to the preparation of rural people for the new world situation. The present supply of prepared teachers in no sense equals the demand which should be made by rural people. We believe that normal schools and other teacher preparing institutions should immediately recognize their obligation, first, to train teachers for rural schools, and, second, to create among rural people an ever-increasing demand for prepared teachers. Normal schools have done much in recent years to recognize their obligation to the rural people, but only a beginning has been made. To satisfy the real need at least one-half of all students in attendance at normal schools should be preparing to teach in rural communities. All educational authorities, especially those preparing teachers, owe it to the public to emphasize to prospective and active teachers the opportunities for public service rather than the opportunities for the individual which the profession of teaching offers.

For the condition of rural teacher preparation in Kansas the commission does not by any means hold the normal schools primarily responsible. Rural school teachers are not likely to attend normal schools when there have been provided easier and less expensive

methods of securing certificates through county examinations and high-school normal training courses. If, therefore, students do not come to the normal schools to secure training for rural school teaching, except in short summer and spring terms and in the one-year curriculum, obviously the normal schools can not train them. The normal schools have therefore done the perfectly natural thing, namely, they have confined themselves chiefly to the preparation of grade teachers and even high-school teachers for city and town schools.

As mentioned elsewhere in this report, there is an important exception to this statement in the amount of rural school consolidation which is being promoted particularly by the Hays Normal School. Under the energetic guidance of the department of rural school extension at that school, many of the one-room rural schools in western Kansas are being transformed into modern consolidated schools. The commission wishes to express its warmest approval of all these efforts and its hope that this work may be given even more substantial encouragement by the addition of other capable members of the faculty in this department.

Statistics from the three normal schools concerning the manner in which the eight and one-half weeks spring-term students were accommodated in classes is contained in the following table:

Spring-term students.

Institutions.	Spring-term students.	New classes formed for spring-term students.	Registration in new classes	Percentage of total in new classes.	Classes organized at beginning of second semester to which spring-term students were admitted.	Registration in classes organized at the beginning of second semester.	Percentage of total registrations in classes organized at beginning of the second semester.
Kansas State Normal School....	167	23	568	96 3	20	22	3.7
State Manual Training Normal School.....	131	20	393	84.3	14	73	15.7
Fort Hays Normal School.....	84	3	74	23.6	44	240	76.4

The commission is aware of the difficulties which each normal school encounters in providing new classes for all the students who register for work during the spring term. On the other hand, to permit students to enter classes organized at the beginning of the second semester is undesirable both for the students already in the class and also for the students who enter at the middle of the second semester. It would be better therefore to restrict the registrations during this spring term to candidates for the one-year teachers' certificate and in so far as is possible to form new classes for them.

In order to meet the demands made upon them for different types of teacher training for urban schools, the normal schools with certain exceptions have established a variety of curricula: (1) The two-year curricula (leading to life certificates), which prepare for kindergarten, primary, intermediate grades, and junior high-school teaching; (2) two-year curricula (leading to three-year certificates), which prepare special vocational teachers of agriculture, home economics, music, commercial subjects, and manual training for teaching either in elementary or high schools; (3) four-year curricula, leading to life certificates, for teaching in high schools; and (4) four-year curricula, leading to certificates to teach in Smith-Hughes schools of home economics and trades and industries.

Degrees and certificates granted by the normal schools July 1, 1920, to July 1, 1922.

Institutions.	B. S. in education.		B. S. in commerce.		B. S. in music.		Life certificate.		Special certificate.		Three-year State certificates.		One-year State certificates.	
	1921	1922	1921	1922	1921	1922	1921	1922	1921	1922	1921	1922	1921	1922
Kansas State Normal School	58	71	2	12	3	3	166	169	88	88	142	202	880	866
State Manual Training Normal School	73	83	.....	.....	.....	.....	152	258	10	21	181	210	476	446
Fort Hays Normal School	39	44	.....	.....	.....	.....	68	31	21	24	67	72	330	413

DISSIPATION OF THE TEACHER-TRAINING FUNCTION AT THE NORMAL SCHOOLS.

So long as the State law does not require more extended preparation of rural teachers, the commission is of the opinion that the chief function of the normal schools, during the regular academic year, lies in the preparation of grade teachers for the schools of towns and cities where the local school boards now require something like adequate training of their teachers. The two-year curriculum leading to the life certificate is by no means all that is to be desired in the way of training for teachers in the grades, but it is perhaps about all that is now attainable in Kansas until either the State legislature or local school boards raise the requirements for their teachers. In many instances local school boards require or encourage attendance at summer sessions even after teachers have been employed.

In 1905, as has already been mentioned, the Kansas State Normal School Board was given the right to grant degrees. Since they were branches of the Emporia school at the time of their establishment, the Pittsburgh and the Hays Normal Schools have also enjoyed the same rights. In view of the low requirements in the State regarding the preparation of elementary-school teachers, the power to grant degrees at the normal schools meant in effect the right to establish four-year curricula for the preparation of high-school teachers. The

commission does not now feel itself called upon to discuss the wisdom of this action. It does believe, however, that it is incumbent on it to state that in establishing curricula for the preparation of high-school teachers the normal schools took the first of a series of steps which have sufficiently distracted their attention from their original purpose as to lead to a certain confusion concerning the legitimate function of the normal schools.

In this connection it may be pointed out that by establishing curricula for the preparation of high-school teachers, the normal schools entered a field where the university is the natural leader and where, to say the least, the normal schools only share equal opportunities with many other higher institutions in the State. Whatever may have been the need of linking up the preparation of high-school teachers with that of elementary-school teachers, there can be little doubt that to a certain extent the attention of the administration and the faculty at the normal schools has been drawn away from the curriculum and the subjects necessary for the preparation of elementary-school teachers to curricula and subjects which minister primarily to the needs of high-school teachers. Along with this, it has been necessary to establish teacher-training high schools.

In these and many other ways the commission feels that the normal schools have entered a field of work some of which is not being performed on a high collegiate plane, and yet which to a considerable extent has claimed the attention of the normal schools sufficiently to reflect unfavorably on the superior quality of work otherwise possible in the preparation of elementary and rural school teachers. The preparation of high-school teachers has not for a number of years been a very serious matter in Kansas, but the State is in great need of every effort that can be put forward toward the better preparation of elementary-school teachers. In this field the normal schools have no higher institutions as competitors and they should be slow to take on other duties which draw them away from the main purpose for which they exist.

It was perhaps not an expensive matter to organize and conduct curricula for the preparation of the usual teachers of academic subjects in the high schools. On the other hand, the establishment of laboratories and shops sufficiently complete to prepare adequately high-school teachers of physics, chemistry, botany, general science, agriculture, home economics, and manual training, necessitates the expenditure of considerable sums of money to meet the needs of what is as yet a relatively small number of students, and, in view of the far greater laboratory facilities existing at the university and the agricultural college, this number is not likely to increase very fast.

However, the popular demand 20 to 25 years ago for manual training and other forms of so-called "practical" high-school work resulted in the establishment of the "State Manual Training Normal School" at Pittsburg. The demand for teachers in this field finally became so great that in 1915 the legislature threw open the gates and allowed all of the normal schools to establish two-year curricula for the training of vocational teachers in agriculture, home economics, manual training, music, physical education, commercial subjects, and drawing. Comment has already been made on this low standard for teacher preparation. At this point it is important to notice that by establishing a manual training normal school and by authorizing all the normal schools to enter the field of training vocational as well as academic high-school teachers, the State legislature deliberately invited the normal schools to take what may be called the second step in diverting their attention from their primary function, the training of elementary-school teachers.

The steps taken by the normal schools in the establishment of laboratories and shops for the training of vocational teachers, particularly the normal school at Pittsburg, have placed them in a position to respond to any local or sectional demand for training in trades and vocations quite apart from the preparation of teachers in this field. This is the third and most important step which has resulted in diverting the attention of at least two, and especially one, of the normal schools from the function of preparing teachers.

THE KANSAS STATE NORMAL SCHOOL.

Turning to the individual teacher-training institution for a fuller discussion of this matter, let us take first the Kansas State Normal School. At this institution there exists practically no present evidence of a tendency to encourage vocational studies for other than teacher-training purposes. Nevertheless, the commission is of the opinion that the offering of separate four-year curricula leading, respectively, to the degree of bachelor of science in commerce and bachelor of science in music may at any time be turned from their present single purpose of preparing teachers for these two fields to any vocational purpose the administration and faculty may later decide on. Even at the present time the Emporia catalogue (p. 71) states that:

> Students may take work through one year or more leading to preparation for the civil service of Kansas or of the United States and for office work as stenographers, secretaries, and bookkeepers upon payment of a small fee in addition to the regular incidental fee.

The new courses in library management are open to the same possibility of vocational and professional as well as teacher-training purposes.

FORT HAYS NORMAL SCHOOL.

At the Hays Normal School the outstanding example of a vocational curriculum not intended to prepare teachers is the six months' course in telegraphy and station training. Two years ago the normal school accepted from the Union Pacific Railroad Co. telegraphic equipment valued at $5,000. This equipment was installed in one of the normal school buildings. A teacher was employed and instruction has since proceeded with a limited number of students. There is a contract that the Union Pacific Railroad Co. will take all students prepared at the school, and so far there has been no difficulty in placing all the graduates of the school in the service of that company.

Other vocational courses of somewhat similar nature are given in the department of commerce, where, it is stated (catalogue, p. 43), that the department is organized and equipped to train high-school teachers of commercial subjects and "to prepare others for business positions." For this latter purpose there have been established a six months' commercial course and four majors in the department of commerce, respectively: "Stenography and office training," "banking," "accountancy," and "business administration." The department advertises an imposing array of courses sufficiently numerous to fill the needs of a college of commerce located in a large city.

During the year just closed there were 23 students graduating from the commercial teachers' curriculum, and 13 students who were taking work leading to some kind of business career. The seven courses in journalism advertised in the catalogue are also evidently intended to satisfy the needs of students who do not expect to go into high school teaching.

The three and four year curricula in applied music—that is, pianoforte, pipe organ, string and wind instruments, and voice—are also intended to serve a sectional need in the State for professional work in music. The catalogue states (p. 73) that a conservatory for private lessons is maintained in addition to the work in public school music and that "it is the aim of the normal school that it shall become the great leader in music of the West. The instructors in the department are artists as well as teachers."

During the semester just closed, in addition to 62 students who were majoring in other lines of work while taking one or more courses in music for credit, there were 8 students in the Hays Normal School who were majoring in public school music, 11 students who were majoring in applied music, and 20 special students who were registered in the school for a small amount of music per week.

Under a new title of "engineering" there are also being offered for next year six new courses in (1) irrigation and drainage engineer-

ing; (2) roads and pavements; (3) sewage; (4) water supply; (5) farm machinery and motors; and (6) farm engineering. It is evident that these courses are intended to appeal to others than teachers.

Reference is made in succeeding pages to the extent to which agriculture for other than teacher-training purposes is being encouraged at Hays.

STATE MANUAL TRAINING NORMAL SCHOOL.

Of the three normal schools in Kansas, the response to sectional demands for vocational education in addition to teacher training has been greatest at the State Manual Training Normal School. Indeed, this work has developed to such a degree that it is now one of the avowed purposes of the administration at Pittsburg as is made clear from the following quotations taken from the catalogue for 1920–21:

> Another feature of the catalogue is the opportunity offered for those who desire preparation for purely vocational, industrial, and technical fields of activity.
>
> To serve this increasing demand, and especially as it has become so apparent and urgent in this particular part of our State, two-year courses of the most practical nature and content are now being offered in the following: Industrial, electrical engineering, mining engineering, mechanical engineering, civil engineering, machine shop, drafting and design, pattern making, automobile, cafeteria management, home makers, sheet metal, commercial, and printing. Full two-year credit is given for the above courses by engineering colleges when the work has been completed by those who are graduates of accredited four-year high schools. For those who have not had the advantage of such high-school preparation, two-year vocational courses along the line of mining, steam and stationary engineering, electrical trades, and telegraphy and radio work are offered.
>
> No apology is made for this seeming innovation in the curricula of a teachers' college. For too long have the public schools of our country failed to make any effective and practical application or any vital functioning of the subjects taught. School life has been distinctively one thing; the social life of our people another; and so thoroughly have the two been kept apart that, like the Jews and Samaritans of old, they have had, for the most part at least, no dealing with each other.
>
> The teachers' college which does not possess within its faculty, its equipment, and its facilities the ability to carry out courses for the preparation of individuals for the most effective and practical citizenship in other fields of activity, or the teachers' college which places so little value upon this particular phase of education as a legitimate part of our educational responsibility, can not perform its greatest service to the public.
>
> The same educational preparation that prepares an individual to be a real efficient teacher is the same sort of education that prepared him to be an efficient and good citizen, so far as the courses taken are concerned. There is not one kind of knowledge in science for the teacher and another for the man who does not expect to teach; there may be a difference in quantity, not in quality.

The commission is convinced that the very nature of the normal school at Pittsburg as a "manual training normal school" has contributed to a considerable degree to the conception of the function

of the institution which has been quoted. In order to give the work needed to develop high-school teachers of physics, chemistry, home economics, and manual training it was necessary to establish laboratories and shops of considerable size which might also be used for the training of vocational students at any time there was sufficient room and faculty to do so. In 1910 there seemed to be a local demand in Pittsburg for classes in the elements of mining. Accordingly, evening classes in this subject were held in the class-rooms and shops at the normal schools. The experiment met with a considerable response, and in 1912 classes in applied electricity were added. Extension classes in the same subjects were organized in the numerous small mining and industrial towns which surround Pittsburg. In a very short time, also, day courses were given to students who wished to prepare themselves for trade and vocational work. All or practically all of these students were young men who had not gone further in their general education than the elementary school. After finishing these trade courses, which required about one year, it was found that some students wished to continue their work. There were also a small number of high-school graduates who desired a certain amount of advanced work along industrial lines. Accordingly, about eight years ago there were organized several two-year curricula in "industrial engineering" in which these two types of students are accommodated. The curricula in industrial engineering were not published until 1918, but since that time they have been extensively advertised. Finally, in 1919, as will be mentioned at greater length elsewhere, the normal school, with the consent of the board of administration, reached an agreement with the engineering school at the University of Kansas for the latter to accept two years of engineering work from the Pittsburg Normal, provided it was comparable in character to that required in the first two years at the university.

The growth in technical and trade students at the State Manual Training Normal School was doubtless increased by the World War. In the first place, as is well known, the number of students studying to be teachers dropped off at practically all the teacher-training institutions in the country, the State Manual Training Normal School included. Accordingly, it was perfectly natural for the normal school during the period of great need for all kinds of shop workers and repair men to lend its shop and laboratory facilities to this character of work. Since the war the State Manual Training Normal School, as other teacher-training schools, has again increased the registration of prospective teachers, but it also continues to give vocational courses and industrial engineering work to a large number of Federal trainees under the supervision of the Veterans' Bureau and to such other vocational students as apply for this work.

In order that the extent of the trade and industrial engineering courses may be better appreciated it seems desirable to describe this work at some greater length. It is conducted mainly by two departments, namely (1) industrial arts and (2) engineering and technical courses.

In the industrial arts department trade courses covering from one to two years, according to the previous experience of students, were announced last year as follows: (1) Machinist and tool making; (2) pattern making; (3) automobile work; (4) carpentry; and (5) telegraphy. For next year the department has dropped carpentry and telegraphy but has increased its offerings to include four additional trades: (1) Linotype operating; (2) printing; (3) machine and architectural drafting; and (4) furniture upholstering and repairing. These courses are also much more extensively outlined than formerly. In the catalogue for 1921–22 they occupy about 7 pages, in the catalogue for 1922–23, about 18 pages. Obviously, the trade courses in this field are regarded as of increasing importance.

In the engineering and technical courses division there is also much evidence of expansion in the trade courses announced. In 1921–22 the following one-year vocational courses were listed: (1) Electricians' course; (2) miners' course; (3) stationary engineering. To this number has been added for next year: (1) A one-year course in storage battery construction and repair; and two-year courses in (2) auto electricity; (3) shop electricians' course; (4) mine electricians' course; (5) motor maintenance; (6) house wiring; and (7) road building and general construction course.

Perhaps it should be said that the additional trade courses here mentioned are practically all variations of the first three trade courses. With the increase in the number of trade students who later desire to enroll in the two-year industrial engineering curricula, it has become the practice of the departments to retain in the general trade courses all those students who show promise of being able to carry successfully the later industrial engineering curricula. Those who do not show such promise or who expect to remain but a year or two are placed in the specialized trade courses.

In addition to the trade courses mentioned above, the department of engineering and technical courses is responsible for the two-year curricula in industrial engineering. During the year just past there were curricula in (1) industrial civil engineering; (2) industrial electrical engineering; (3) industrial mechanical engineering; (4) industrial mining engineering. To these courses of study there has been added for next year a curriculum in industrial chemical engineering.

Other evidence to the effect that work in this field is being considerably expanded is seen from the fact that the number of courses offered

in this division has been increased as follows: Chemistry, 7 to 16; geology, 2 to 4; mining, 5 to 17; physics, 19 to 24; drafting, 2 to 9; mathematics and applied mathematics, 30 to 34. A few, but by no means all, of these courses have hitherto been listed in the offerings of the college of arts and sciences.

The purposes of these industrial engineering courses of study are well set forth by J. A. Yates, director of electrical and mining engineering and professor of chemical and physical sciences, as follows:

We have in industrial regions many capable young men who for various reasons have not obtained a complete high-school education. Our courses furnish the opportunity to these men to obtain an educational preparation for many of the positions of leadership in our varied industrial life. The subjects to be studied in the course, and the length of time required to complete it, appeal to the ambitious man who has found from his previous experience the need of such information which is furnished in these courses. To finish the high-school subjects and the usual four-year engineering course is beyond his reach, both in point of time and course content; therefore, he is forced to attempt to get any educational help available.

Regular four-year high-school graduates who complete any of these courses and during the two years they are in school become impressed with the field of service offered by teaching, may continue their studies, and in due time meet all requirements for our degree in education. These men, after acquiring the proper trade contact, will have excellent preparation for Smith-Hughes teachers in the line of work indicated by their chosen course.

It is our deliberate conclusion after many years of study and consultation with men employed in positions of directing work in the lines covered by our courses that we meet an educational need, fill a gap as it were, for men employed in the different lines of our industrial activities, not giving complete preparation for the highest type of engineering work but educational preparation far above that of the tradesman or that which may be obtained through extension or correspondence work.

These courses furnish an additional stimulus for many students, and particularly for those students of industrial arts, trades, and vocational departments of which we have large numbers.

These industrial engineering courses offer splendid opportunities for students preparing for teaching mathematics and physical sciences to equip themselves so as to make the most practical and vital application of what they are to teach in these important fields of our public schools. Indeed, many who are not specializing in these fields appreciate an opportunity to take a few courses to make more practical and broaden their preparation for the things which they are to teach. We have a number of students also who are looking forward to sometime taking up educational directorship in industries, and the industrial engineering courses will give a splendid preparation for such objectives.

* * * * * * *

The industrial and scientific courses at this institution have grown into two-year courses in civil, electrical, mechanical, and mining engineering. The completion of any of these courses leads to a diploma. Their purpose is to prepare young men for positions as foremen and superintendents of our industrial plants doing the work indicated by the title of the course. Many of the larger industrial companies have approved these courses and are ready to give employment to young men who have successfully completed any one of them. A large number of young men are taking advantage of the opportunity offered by these courses.

These two-year industrial engineering courses are built upon the very minimum requirements in mathematics and theoretical science, thereby enabling the student

to become familiar with engineering subjects from the practical side rather than the theoretical. The young man who completes one of these courses is expected to be able to do the work called for in the course. He is also expected to be able to direct the work of others and, in addition, to be able to decide the cheapest and best method of doing a definite piece of work. It is not the thought of these two-year engineering courses that they substitute for the four-year courses in engineering. The two-year industrial engineering courses are not the first two years of a four-year course, but are complete courses designed to fill the gap in educational training between a four or five year course in the old-established schools of engineering and little or no educational training above the equivalent of that of a high school.

As has already been alluded to, the students who register for the two-year curricula in industrial engineering are of two classes—(1) graduates of the one-year trade courses preparatory to the respective industrial engineering curricula, and (2) high-school graduates. The registration in industrial engineering as well as in trade-vocational courses is given in the following table:

Registration of engineering and trade students at the State Manual Training Normal School, 1920–1922.

Students.	1920–21	1921–22
Four-year engineering students	17	13
Industrial engineering students.-		
High-school graduates	12	16
Not high-school graduates	140	195
Vocational trade students:		
Federal trainees	137	276
Other students	16	22

[1] Of this number, 39 were Federal trainees.
[2] Of this number 92 were Federal trainees.

From this table it will be seen that, of the 111 industrial engineering students registered at Pittsburg in 1921–22, only 16 are graduates of high schools. Notwithstanding this fact, these curricula and all students in them are regarded as of standard college grade. The two types of students naturally differ in their preparation, and adjustments in the required courses are made to meet this condition. For example, the high-school graduate, being better prepared in English than the vocational graduate, is not required to take the course in vocational English. On the other hand, he will perhaps be behind in certain shop work which he is asked to make up. Also the high-school graduate is not required to take the course in practical algebra but instead takes a course in industrial mathematics, which the trade graduate has had in his one-year trade course. In the second semester both types of students take plane trigonometry. Indeed, beginning with the second semester of the first year, all students registered for example in industrial electrical engineering take exactly the same work. In order that the entire curriculum pursued by a trade graduate who later finishes the course of study in industrial engineering may be made clear the commission has

selected the curriculum in industrial electrical engineering as an example of the practice followed at the Pittsburg Normal School.

Vocational course for electricians.

FIRST YEAR.

First semester:	Units.	Second semester:	Units.
Electrical wiring	1	Practical mathematics	1
Electrical installations	1	Generators and motors	1
Elementary electricity	1	Mechanical drawing	1
Power transmission	1	Storage batteries	1
Practical mathematics	1	Auto electricity	1
Related sciences	1	Electrical signs	1
Carpentry	1	Armature winding	1
Mechanical drawing	½	Electrical benchwork	½
Total	2½	Total	2½

Industrial electrical engineering course.

FIRST YEAR.

First semester:	Hours.	Second semester:	Hours.
Industrial mathematics	3	Plane trigonometry	2
Gas engines	3	Electric wiring	3
Forging and elementary machine shop	2	Electricity and magnetism	4
Mechanical drawing	2	General machine shop	2
Chemistry 1	5	Machine drawing	2
Physical education 1	1	Strength of materials	2
Total	16	Physical education 2	1
		Total	16

SECOND YEAR.

First semester:	Hours.	Second semester:	Hours.
Mechanics and heat	4	Gas engine electricity	3
Electrical measurements	3	Illumination	2
Mechanics	2	A. C. machinery	4
Armature winding	2	Elementary surveying	3
D. C. machinery	2	Contracts and specifications	2
Electrical installations	3	Storage batteries	2
Total	16	Technical reports	1
		Total	17

During the year just closed the industrial depression has had a marked effect on the vocational work done at Pittsburg. Nearly all of the night classes, for example, have been discontinued. On the other hand, the institution is now caring for nearly twice as many Federal trainees in trade and industrial engineering curricula as it did during the previous year. The total number of these Federal trainees accommodated during the year was 368. The general importance of the trade and industrial engineering work in the life of the institutions is indicated to a certain extent by the following quotation taken from the current catalogue: "Between 600 and 700 men are now in attendance at the institution, and about half this number are availing themselves of the opportunity of the above industrial, engineering, and technical courses."

The last step taken by the division of engineering and technical courses in the expansion of its technical curricula was to reach an agreement in 1919, the board of administration consenting with the University of Kansas whereby the latter agreed to recognize the right of the normal school to conduct classes in elementary tech-

nical subjects with workers in coal-mining plants, lead and zinc mining plants, railroad shops, and public-utility plants. Also it was provided that the university would accept two years of engineering from the State Manual Training Normal School, provided the work was comparable in character to that offered in the engineering school at the university. The subjects which the normal school offers for this purpose are, of course, essentially different from those prescribed in the two-year industrial engineering curricula. Graduates of the industrial engineering curricula receive no credit at the university unless they satisfy the regular entrance requirements, and then only for courses which have been taken in the regular normal school classes of collegiate grade. These courses include trigonometry, physics, drawing, and shopwork, elementary steam power plants, and three hours of elementary surveying.

During the past year 13 students pursued courses intended to fulfill the requirements toward the first two years of a regular four-year engineering curriculum. So far, however, a negligible number of normal school students have transferred credits of this character to the university engineering school.

While the trade and industrial engineering courses are by far the most important variations from the program of teacher training at the State Manual Training Normal School, there are certain others. First in importance are the opportunities offered for commerce and business. The teacher-training high school has a two-year commercial course comprising the usual subjects of shorthand, typewriting, bookkeeping, and similar subjects.

There are also two short business courses in stenography and bookkeeping, respectively, for vocational students. Ordinarily, the stenography course, which is more popular with the young women, requires about nine months for completion.

The relative importance of the several kinds of service rendered to students by the department may be seen from the fact that there are 20 students in the two-year high-school commercial course; 40 in the regular two-year college curriculum leading to the special three-year teachers' certificate; 70 vocational students in the stenographic and bookkeeping short courses; and 15 or 20 students majoring in other fields who elected one or two courses in the commerce department. Of the 70 vocational students, 25 are Federal trainees, and the other 45 are chiefly young women from Pittsburg and the surrounding territory who are taking the stenographic course preparatory to office work.

Plans for giving professional training in four-year degree courses in music are offered at the Pittsburg Normal School as well as at the Hays Normal School. The degree of bachelor of science in music is given in voice, piano, violin, and organ. Certificates in each of

these fields of music are issued to students who finish three-year courses of study. The department also gives the two-year music supervisors' course leading to a special life certificate for teaching in the public schools.

During the year just closed there were 23 students who planned to become music supervisors, as against 14 who expected to make music a profession. Besides these, there were 33 college students majoring in other departments who were pursuing one or more courses in music.

The home economics division also plans its courses not only for teacher training and home-making purposes, but "to prepare students to pursue some special line of activity, such as dietitian and institution manager." Thus far the department has not attempted much beyond teacher training, except special night and extension classes for housekeepers in Pittsburg and neighboring small towns.

EFFECTS AND CONCLUSIONS.

From the illustrations which have been cited it is evident that two of the normal schools, particularly the State Manual Training Normal School, have departed considerably from the theory that normal schools should confine themselves to training teachers. Most of these departures have been made in recent years. At any rate, the conception that the State Manual Training Normal School should expand into other fields of activity was apparently not shared by the first board of administration, as the following quotation from the report of that board for the biennium ending June 30, 1916 (page 26), shows conclusively:

> The board of administration appreciates the wisdom of the time, the place, and the men who founded this institution (the Pittsburg Normal School), and in the selection of a president and faculty have sought to keep it true to the part made at its birth. It was established as a *normal* school, not a trade or technic school. For its founders realized that the institution could multiply its influence many thousand fold by dealing with future teachers rather than with individual artisans.
>
> It was established as a *manual* training normal school, which indicated that its founders and the State desired something different from the ordinary type of a normal school, of which they already had two. And so they emphasized the fact that this institution was expected to give special force and prominence to the training of teachers along manual lines.
>
> The board of administration, through the present president and his able faculty, emphasizes this purpose. The school lives up to the ideals for which it was founded; the opportunity of the place and the foresight and wisdom of the men who founded it. It is indeed and in truth a school that devotes itself to the training of teachers, rather than to the training of artisans or tradesmen, and to the training of manual and household arts.

A comparison of this statement with that already quoted from the current catalogue of the State Manual Training Normal School

shows how different is the present policy of the Pittsburg Normal School from that announced by the previous board of administration. The commission is convinced that so important a change in policy as is represented to a certain extent at the Hays Normal School but primarily at the State Manual Training Normal School deserves further discussion.

In the first place, however, the commission wishes to acknowledge the fine spirit of devotion and sacrifice exhibited by the faculty at the two institutions in responding to what they believed were the demands made upon them for vocational and trade training over and above the regular work of the institutions. Instructors and professors have organized night classes and extension classes with no thought of reward save the satisfaction of doing a good piece of work. Also the State Manual Training Normal School has opened its facilities to the United States Government for the Federal trainees. Moreover, it is a fact that during each of the last two years from 20 to 30 of the vocational and industrial engineering students have become interested in teaching and have transferred to curricula leading to teachers' certificates.

Notwithstanding these modifying circumstances, it is questionable whether, in expanding into vocational training, the wisdom of these two normal schools has equaled their spirit. The demand for the vocational training of former soldiers is temporary and will cease within a few years. The fact that some students transfer from the vocational curricula to teacher training would not usually be regarded as a sound reason for establishing vocational curricula or any other curricula.

Moreover, notwithstanding some possible benefits in the association of future teachers with vocational students, the commission believes that the addition of vocational work has had an unfavorable effect upon the quality of teacher training at the normal schools. It is now an accepted standard among all standardizing and accrediting agencies that collegiate work is done in the most acceptable manner if it is entirely separated in classes, teachers, and buildings from work of secondary grade.[1] For a number of years higher institutions have been steadily dropping their preparatory departments until the present time secondary schools, if retained at all, are maintained only as training schools for practice teachers.

At the State Manual Training Normal School on account of the variety of work, it has not been possible to carry out this separation. Regular college students, high-school students, vocational students, and industrial engineering students all use the same buildings, the same classrooms, shops, and laboratories. The faculty also for the

[1] The only exception to this rule is in the case of critic or supervising teachers who conduct classes for

several classes of students is by no means distinct. The following table shows the number of faculty members who teach in the respective fields, as follows:

1. College subjects only	17
2. College subjects and secondary subjects	18
3. College subjects and industrial engineering	3
4. College subjects and vocational subjects	8
5. College subjects, vocational subjects, and secondary subjects	6
6. College subjects, vocational subjects, and industrial engineering	2
7. Industrial engineering only	1
8. Industrial engineering and vocational subjects	4
9. Industrial engineering and secondary subjects	1
10. Secondary subjects only	1
11. Secondary subjects and vocational subjects	1
12. Vocational subjects only	7
Total	69

From [illegible] table it appears that, of the 69 members of the faculty, only 26 teach one type of work, 35 teach two types of work, and 8 teach three types of work. Of the 17 members who have only college courses, 13 also do either correspondence or extension work or both. Fifteen of the 43 members of the faculty scheduled for two or more types of resident work do extension work.

The commission requested the department of mathematics and applied mechanics, the department of chemical and physical sciences, the commerce department, and the division of industrial arts to submit data for the second semester of the past year showing the classes which contained mixed students. These data show that there are in these departments 8 classes containing vocational students and industrial engineering students; 9 classes containing college and vocational students; 3 classes containing college and high-school students; 1 containing vocational and high-school students; 2 containing college, vocational, and high-school students; and 4 containing college, industrial engineering, and vocational students. During the first semester the number of mixed classes in the division of industrial arts was much larger than in the second semester. In that division alone there were during the first semester 13 classes containing college and vocational students and 4 classes containing college, vocational, and high-school students. The college and industrial engineering students received their credit as usual in semester hours and the vocational and high-school students in units.

In a number of instances the classes included in the computation of mixed classes mentioned above contained only one or two students from outside the division in which the courses were scheduled. For a number of such cases special reasons were offered for permitting students to schedule work outside their respective divisions. In

some instances students were said to be older than their classmates and sufficiently well prepared to do more advanced work. Also it should be remembered that a considerable amount of the elementary shop and wood work is essentially the same for all types of students.

Notwithstanding these palliating circumstances, the commission is of the opinion that work done under these conditions at a normal school is as likely to lower the standards of scholarship as is commonly held to be true of higher institutions in general. Classes composed of students with a variety of preparations naturally have to seek a common basis from which to proceed. Hence there is an inevitable tendency to lower the standard of class work to that of the more illy prepared students in the class. This tendency has been true in too many higher institutions in the past. At the present time educators are coming to realize more keenly their deep obligation to develop the better prepared students. The zeal therefore to serve numbers of students with different preparations may detract from serving most effectively those who have made the preparation demanded by an institution to fulfill its primary function. In this case the primary function is the preparation of teachers. The commission holds that there is no greater function for a higher institution, and it believes therefore that the standard of preparation at the normal schools should not be endangered by zeal, no matter how commendable, for service in other than fields of teaching.

Another reason freely offered to the commission at both the Hays and Pittsburg Normal Schools for extensive vocational courses was the argument that each institution was under obligation to meet sectional and local educational needs in other fields than teacher training. The peculiar constituency surrounding both these institutions and the fact that in both cases there is no other higher institution near at hand was held to justify a quite indefinite expansion to satisfy a large portion of the educational wants of the particular sections in which the institutions happen to be located.

The commission understands that the presence of a higher institution in a certain section of the State may well be a source of pride to the people of that section, and it agrees that the institution may be more appreciated within a radius of 100 miles of its location than in more remote sections of the State. This condition does not by any means, however, justify indefinite expansion at all the higher institutions. The only logical conclusion to such an argument in Kansas is five universities. With increased cost and standard of scholarship at stake as possible sacrifices to this conception, the commission believes that it would be much more desirable and wholesome to hold to the theory that all five of the institutions are State institutions. They are supported and maintained by all the people of the State, and consequently they belong to all the people

of the State rather than to any section, or certainly to any locality. Under these circumstances the obligation to each institution is not to attempt to fulfill a large number of functions, but to excel in those which have been assigned to it.

The commission desires further to point out that the vocational opportunities which sometimes appear quite alluring are very likely of temporary duration. It is said, for example, that coal mining as an industry near Pittsburg has a limited existence. Furthermore, there is nothing clearer in modern educational tendencies than the increasing effort to satisfy through other organized channels, including the public-school system, the neglected field of secondary vocational training. This field has by no means been covered, but the steps already taken account in large measure for the falling off in attendance at the secondary vocational school of agriculture at Manhattan. The commission believes, therefore, that the present demand for vocational training at the normal schools will very likely decrease rather than increase. There is left, then, besides teacher training, only the fields of more direct competition with the university and the agricultural college, which seem especially unwise for the normal schools to enter.

The commission therefore recommends that steps be taken to abandon at the normal schools the trade and vocational courses now in operation. It will, of course, be impossible to take this step immediately, in view of the considerable number of Federal trainees who will doubtless be stationed at Pittsburg for a few years. The normal schools can, however, abandon the other trade and vocational work and devote the funds which have hitherto been expended in this field to improvements in the legitimate functions of the normal schools.

It will then remain for the regular channels of the public school system in conjunction with the Smith-Hughes organization to take care of trade and vocational education in Kansas. The commission believes that as time goes on this method which was devised for this purpose will prove amply able to take care of the demand. If, perchance, there still remains an unsatisfied demand, it should be cared for by budgets entirely separated from the normal-school budgets, in order that the money appropriated to the normal schools may be used entirely for teacher-training purposes.

TRAINING OF VOCATIONAL TEACHERS IN THE NORMAL SCHOOLS.

The commission has already stated its conviction that two years of training for high-school teachers who expect to teach vocational subjects such as agriculture, home economics, music, and manual training as permitted by the present law in Kansas is insufficient,

and that the requirements should be increased at once to three years and in a short time to four years.

Anticipating an action of this character, the commission wishes to raise the question whether all of the normal schools should then attempt to give four-year curricula leading to the preparation of high-school teachers for all vocational fields. In this connection it may be well to call attention to the fact that all the curricula for the preparation of vocational teachers under the provisions of the Smith-Hughes Act are four years in length and, furthermore, that for this work there has been made a selection of higher institutions in the State which are believed to be able to give four-year curricula for the preparation of teachers in the vocations of agriculture, home economics, and trades and industries. For the training of vocational home economics teachers the agricultural college and the university have been selected; for trades and industries the State Manual Training Normal School; and for agriculture the State agricultural college. This principle of selecting particular higher institutions for the training of Smith-Hughes high-school teachers conforms with the commission's conception of the university's general leadership in the preparation of secondary teachers and the leadership of the agricultural college in the particular field of agriculture and home economics and also with the policy which ought to be pursued toward the training of all vocational teachers, whether for Smith-Hughes schools or for general vocational purposes.

One of the natural limiting factors to which reference should be made immediately is the number of students who are to be accommodated with properly prepared teachers in each of the vocational fields. The latest reports concerning this matter are the Bureau of Education reports for 1917–18. According to these reports there were in Kansas for that year in trade-training courses, 6 high schools and 92 students; home economics, 145 schools and 3,535 students; agriculture, 140 high schools and 2,641 students; manual training, 89 high schools and 2,668 students; commercial courses, 117 high schools and 4,365 students, as compared to 489 high schools and 33,131 students in the usual academic subjects.

It may be well also to recall that, in establishing the manual training normal school at Pittsburg, it was doubtless assumed that the normal school at Emporia would largely remain what it always had been, namely, an institution whose primary function would be the training of teachers in the older academic subjects. To this conception of its obligations Kansas State Normal School has remained true, so that its expansion into the preparation of teachers of agriculture, home economics, and manual training has been less marked than at either of the other two normal schools. The commission is convinced that concentration on teacher training in the first place

and thereafter concentration on teacher training in the academic subjects accounts in no small degree for the excellent work accomplished at Kansas State Normal School. The commission thoroughly commends the clarity and wisdom of this educational policy.

On the other hand, the establishment of the normal school at Pittsburg as a "manual training" normal school doubtless gave to it, in addition to normal-school instruction of the academic type, an obligation to prepare teachers of manual training and home economics.

The Hays Normal School is interested in the preparation of teachers of agriculture. For this reason the institution has advertised not only a two-year curriculum leading to a three-year special certificate to teach agriculture, but also a four-year curriculum for the preparation of Smith-Hughes teachers of agriculture. During the regular year just closed, there were four students majoring in agriculture for teacher-training purposes and one other student majoring in agriculture for general purposes.

The Hays Normal School, by reason of its peculiar foundation, has about 4,000 acres of land, but 300 acres of which it leases out. The extensive demonstration plats and the live stock at the adjoining branch experiment station of the agricultural college are very useful and valuable to students at the normal school. Also occasional use is made of the members of the staff at the branch experiment station. On the other hand, the laboratory equipment in agriculture at the normal school is decidedly meager. The instructors undertake the task of covering the entire field of agricultural instruction in the 20 or more courses offered by the department. The four-year curriculum in vocational agriculture shows the influence of the prevailing practice for students to leave at the end of the sophomore year. The sophomore year is accordingly very heavy on agricultural subjects and the junior year contains subjects which should in reality be prerequisite to substantial instruction in many of the subjects offered in the sophomore year. The minimum change for a good curriculum would be the substantial interchange of the schedules for the sophomore and junior years.

At the Kansas State Normal School there has recently been devised a four-year curriculum in agriculture which suffers from much the same difficulty as the curriculum at Hays, and for the same reason, namely, the tendency of students to leave at the end of two years with special three-year certificates.

Although there are two well-qualified teachers in the department, there is land only for a small garden; there is no live stock of any kind and no poultry. The entire practical training work is done by observation. Laboratory facilities are also meager in extent.

At the State Manual Training Normal School agricultural instruction is practically nonexistent. Again, notwithstanding the cata-

logue's announcement (p. 57), "The experiment stations consist of about 35 acres devoted to various experiments and tests," there is very little garden land or live stock for demonstration purposes. All the courses are taught by a single instructor, who has less laboratory material than many good high schools. A small number of students have a minor in agriculture and some others take elementary courses during the summer for rural-school work.

In general, the commission is convinced that the normal schools can not develop properly trained teachers of agriculture for the following reasons: (1) The equipment in laboratories, orchards, live stock, and land is wholly insufficient and can not be developed except after years of effort and the expenditure of much money; (2) the faculty in agriculture at each of the normal schools is composed of one or two individuals with general training. It is impossible for any of these men to compare in the preparation with the specialists in each field of agriculture at the agricultural college; (3) the normal schools by reason of meager faculty and equipment and because of no facilities for agricultural extension will be unable to maintain that contact with practical farming which is necessary to the best teaching of any subject, particularly agriculture; (4) the lack of any research facilities at the normal schools make it impossible for the faculty to maintain that connection with the rapid advancement in scientific agriculture which is essential to successful teaching.

To supply adequate conditions for the training of agricultural teachers in four-year curricula at the normal schools would require the expenditure of many hundreds of thousands of dollars. Moreover, if the normal schools are to enter this field, there is every reason why the university should do likewise. The commission can see no reason in the present situation why the State agricultural college can not train all the teachers of agriculture in four-year curricula that are needed in Kansas. To develop such curricula at any other institution in Kansas, therefore, appears to the commission to be an unwarranted expenditure of public money and an unwise educational policy.

Moreover, the commission believes that with the development of agricultural instruction and adequate equipment at the normal schools there would occur in this field the same ambition to serve in other lines of preparation besides teacher training which have already been called into question in the case of trade courses and industrial engineering at the Pittsburg Normal School. There is indeed some evidence already of this tendency at the Hays Normal School, where there are several students studying agriculture who do not intend to go into teaching. Furthermore, plans are now under way there to hold a three weeks' short course for farmers, similar in character to the one held in 1914 in conjunction with the State agricultural college,

but without such cooperation in the present undertaking. The commission regards this contemplated action as a grave mistake. Such a short course at Hays for farmers of western Kansas may be highly desirable, but it should by all means be given by members of the agricultural college staff in conjunction with the facilities that the agricultural college has at the Hays experiment station.

In stating that the training of teachers of vocational agriculture should all be done at the agricultural college, the commission wishes to point out that incidental credit of from one to two years toward a degree in agricultural education may be secured through the pursuit of basic arts and science at the normal schools. Moreover, there is an important service in preparing teachers of agriculture which the normal schools can render, that is the giving of general service courses to teachers who are specializing in other lines but who may be called on in high schools to teach one or two courses in general agriculture. Furthermore, it should be recalled that the course of study for the elementary schools in Kansas requires certain elementary instruction in agriculture. The normal schools have an important function to fulfill in training teachers in this as well as other elementary school subjects.

The situation concerning home economics at the normal schools differs to a certain extent from that in agriculture. In the first place, there is at the normal schools the same demand for general cultural courses in home economics for young women as the commission has recognized at the university. Moreover, as has been stated, one of the undoubted purposes of founding the Pittsburg Normal School was to train teachers of home economics as well as manual training. Therefore, there has been developed at that institution an ample staff, sufficiently specialized, with excellent equipment entirely adequate for training high-school teachers. During the second semester of last year there were 79 students majoring in home economics at Pittsburg. Even with so large an enrollment, the registration in advanced classes is small and there is ample equipment for many more students. At the Emporia Normal School there has been a modest development of home economics in faculty, students, and equipment. There are offered both two-year and four-year curricula which are identical during the first two years, thereby encountering the old difficulty of placing in the third year of the four-year curriculum basic courses which should be given prior to some of the applied work scheduled in the sophomore year.

During the last four years the following degrees and certificates in home economics have been given: 1919, degrees, 7, certificates, 7; 1920, degrees 1, certificates, 9; 1921, degrees, 6, certificates, 5; 1922, degrees, 4, certificates, 10.

At Hays the equipment both in home economics and basic chemistry courses is quite inadequate. The home economics staff consists of two instructors and is consequently not sufficiently specialized for the best work. The curriculum contains 24 hours of work in home economics and is of weak character, although this amount is more than two instructors should be expected to carry. There is indeed at the institution no considerable interest in home economics; so that during the second semester of the year just closed there were but 21 young women majoring in the department.

In view of the general situation in home economics instruction at the normal schools, the commission recommends that only the Pittsburg Normal School be authorized to continue a four-year curriculum in that field. It seems certain that the interests of the State would be much better served if only the first two years in the four-year curriculum were given at Hays and Emporia. Students who finish these first two years would then be able to proceed to Manhattan, Lawrence, or Pittsburg for the remaining two years.

The commission assumes that the Pittsburg Normal School, the same as the State university, should confine its home economics activities to the training of teachers and to general cultural courses. The agricultural college at Manhattan is well able to supply all other demands in connection with professional home economics work.

Exactly similar conditions to those in home economics exist with respect to the preparation of teachers of manual training and trades and industries. The equipment at Pittsburg is so superior to that at the other normal schools as to give that institution a clear advantage in that field. Last year, 1921–22, there were 64 students majoring in this field at the Pittsburg Normal School. When this condition is considered in connection with the equipment at the agricultural college and the university there seems good reason to doubt whether manual-training courses at Hays and Emporia should exist for any but service purposes.

The training of teachers in other vocational fields at the normal schools the commission feels should, for the most part, be confined to not more than the first two years of work. Such, for example, should be true of the preparation of drawing teachers and physical-training teachers. On account of its excellent equipment an exception might be made in favor of Kansas State Normal School respecting physical-training teachers. Only the university is in a position to train teachers of commercial subjects in a four-year curriculum of high grade. Arrangements should be made to do so at once.

As has already been indicated, the commission is aware of the great social service which can be rendered through music at all of the higher institutions, and it commends the lively interest which has been taken in this form of culture at the normal schools as well as at the university

and the agricultural college. In this field as well as many others, however, there is considerable danger that departments may not make their first obligation the training of teachers for the public schools, and the developing of a widespread appreciation of music among students who are majoring in other fields. The preparation of professional specialists in various forms of music is, as has already been stated, the obligation of the State university. It seems to the commission, therefore, that the degree of bachelor of music should be abandoned at the normal schools and the same degree, bachelor of science in education, granted for a major in this field, as for other teacher training majors.

THE TRAINING SCHOOLS.

The training schools at a teacher training institution are the very life center of the institution. They are as essential to the full development of a prospective teacher as a laboratory is to a budding chemist. It is a well-known fact that a student may master the subject matter of his prospective teaching work, and yet, on account of his unfamiliarity with the method of imparting it to others, be relatively an unprepared teacher. It is therefore essential that students who are in training for the teaching profession should have ample opportunities to practice the art of teaching under the careful supervision of experienced masters of teaching.

The securing of adequate opportunities for practice teaching has been one of the most difficult of modern normal school problems. It has sometimes been possible to make arrangements for students to do practice teaching and observation work in local public school systems. This arrangement has seldom been satisfactory to the normal schools, however, because often the local school authorities refuse to yield complete supervision and control of the practice teachers' work, which of course is one of the chief objects in view.

For this reason it has usually been necessary for normal schools to construct training schools. These training schools form one of the largest items of expense at a normal school, but they are none the less desirable and necessary.

Fortunately, at Hays a happy arrangement has been made with the local authorities whereby the town turns over to the normal school the public schools for practice and observation purposes. In other words, the town pays the expense of buildings and the salaries of teachers. On the other hand, the normal school supplies a superintendent and all supervisors of teachers' work and nominates the regular teachers in the schools. This arrangement is highly satisfactory for the teacher-training purposes, and the commission congratulates the school on so desirable an arrangement.

At Kansas State Normal School there is one good-sized building devoted to the elementary training school. High-school classes are

scattered in the several buildings in order that teachers may avail themselves of the laboratories for biology, physics, home economics, agriculture, and manual training.

At Pittsburg there is no training school building even for the elementary school which is housed in one wing of the first floor of the main building. The senior high-school classes are scattered all over the campus in order that students may be accommodated in the shops and laboratories as at Kansas State Normal School.

These inadequate building and equipment facilities for high-school work at Pittsburg and Emporia, and even for elementary school work at Pittsburg, are among the chief deficiencies at these institutions. The commission is convinced that training school buildings and equipment are among the greatest needs of these two institutions.

It is assumed, of course, that all the faculty of a normal school, whether in subject matter or professional department, are vitally interested not only in teaching students subject matter, but in suggesting to them continually desirable means and methods of imparting this knowledge to others who in turn become their students. This opportunity the commission believes to be the peculiar advantage which a normal school has over other institutions with so great a variety of students and interests. It is for this reason that the commission looks jealously on the introduction of extraneous interests at the normal schools which may in any manner detract the faculty from the single but all important function of training teachers.

Nevertheless, particularly in normal schools which train both elementary and secondary school teachers, it is necessary to organize the training schools in order to secure maximum efficiency. The practice teacher, of course, has the double task of selecting and using her subject matter wisely and correctly and also of imparting the lesson content to her students in the most effective and approved professional manner. Obviously, the practice teacher needs supervision from both points of view, and it is therefore desirable that supervising or critic teachers should not only be thoroughly acquainted with the general principles and methods of good teaching but that they should also be specialists in the subject or subjects which they attempt to supervise, particularly in high-school work. An ideal arrangement, therefore, would be to have in the department of education a sufficient number of full-time specialists to supervise all the practice teaching. Naturally, these specialists should maintain close contact with the respective subject-matter departments, but effective teacher training calls for placing responsibility on the professional department to see that the principles and theories of teacher training are carried out in the practice teacher's classroom.

In a normal school which concentrates on its function of teacher training there need be no subdivision of the faculty for administrative purposes, except into departments. Usually it is feasible and desirable to reduce the number of departments to a small number in order that a large proportion of the faculty may be free from administrative details. In general, the normal schools in Kansas have a larger number of departments than seem necessary, and particularly is this true respecting the professional work in education. At Hays there is a department of education which supervises the training school. There is also a department of rural education, which is largely engaged in promotional and extension work. At the Kansas State Normal School there are the departments of school administration, rural-school administration, and the teacher-training system which includes teachers who teach courses in methods and supervise practice teaching in the training schools. At Pittsburg there are departments of education, rural education, and methodology. The division of the professional work at Hays between the two departments seems in no way to interfere with effective work because the department of rural education is, as has been stated, primarily interested in promoting the consolidation of rural schools. At Emporia also the division is of such a nature as not to complicate the situation. At Pittsburg, on the other hand, there is the anomalous situation of a department of methodology, apart from the department of education, in which are located the critic teachers for the elementary grades and the junior high school. In other words, the courses in methods of teaching are given in a different department from that in which the principles of education are taught and by a member of the faculty who has no relation with the critic teachers and no way of seeing that the practice teachers carry out the lessons they receive in methods classes. A far better way, it appears to the commission, would be to have the teacher of methods a member of the department of education and under the head of that department. In this way there would be better assurance of proper coordination between principles and methods and closer relationship between the methods instructor and the critic and practice teachers.

At Pittsburg, also, the number of full-time supervising teachers seemed quite inadequate. There are one for the kindergarten, four for the first six grades, a principal and three supervisors in the junior high school, and a principal of the senior high school, with no full-time supervisors. At Emporia, on the other hand, there is in the kindergarten a head supervisor and one additional supervisor, a head professor of primary education and four supervisors of primary grades, a head of the intermediate grades and four additional supervisors, a principal of the junior division of the high school and three additional supervisors, a principal of the senior division of the high

school with one full-time teacher of English. Over all there is a director of teacher training.

At both Pittsburg and Emporia practically all the supervising of practice teaching in the senior high school is done by persons who are members of the respective subject-matter departments of the normal school. This arrangement has been resorted to because a full-time supervisor in each subject is scarcely necessary and also because the training-school students are compelled to use the same shops and laboratories that the regular normal-school students use. At Emporia there is cooperation between the director of teacher training and the subject-matter departments in the choice of the supervisor and in the direction of his supervisory work. At Pittsburg, however, the director of the senior high school, who is in the department of education, has nothing to do with the selection of the supervisors for the senior high-school work and nothing to do with the direction of their work. These matters, as well as the enforcement of practice teaching, are entirely in the hands of the subject-matter department. The supervising teachers in the junior high school are responsible to the director of that school who is in the department of education. The head of this department directs the work of the supervising teachers in the primary and intermediate grades.

The lack of an effective organization for the practice teaching at Pittsburg, together with other insufficient facilities, is doubtless largely responsible for the failure to require practice teaching rigidly. For example, last year among the 83 degree graduates 5 were graduated with no practice teaching; 15, including 10 with credits for teaching experience, had less than three semester hours to their credit; and 10 had teaching experience only to their credit. Similarly, among the 217 who received life certificates, 37 had no practice teaching; 44, including 15 with credits for teaching experience, had less than three hours; and 9 offered experience only for credit in practice teaching. The commission is of the opinion that not only should there be a larger number of supervisors at the Pittsburg Normal School, but that the direction of their work should be much more centralized in a director of teacher training who is either in the department of education or who is the head of that department. A normal school, far from being niggardly in the number of trained supervising teachers and other teacher-training facilities, should seek to excel in this field, and no pains should be spared to insure the proper performance of the supervising function through adequate administrative organization.

In connection with the situation in the training schools it also seems desirable to call attention to the fact that in expanding into other fields of activity than teacher training the normal schools have neglected the subject matter of elementary-school subjects. Glancing

through the offerings of practically every department at any of the normal schools, one is impressed with the fact that practically all the courses in history, mathematics, English, botany, zoology, chemistry, physics, and psychology, as well as languages and vocational subjects, are directed primarily to the preparation of high-school teachers. There is a marked enrichment of the courses in high-school subjects as compared to those in the elementary-school field.

In making this comment the commission does not intend to be understood as favoring the review method of going over elementary-school subjects so common in county institutes. It may very well be that many teachers are inadequately prepared in the subject matter of their work, and every care should be taken to correct this situation; but the commission has in mind for each prospective teacher wider opportunities to become acquainted with the length, the breadth, and the depth of elementary-school subjects. In every branch of the curriculum significant progress is being made by nationally known specialists, and a rapidly increasing literature is growing up. The commission believes that the normal schools would be doing the teaching profession of the State a tremendous service if instead of responding almost exclusively to the special needs of small numbers of high-school students they employed well-trained specialists in reading, arithmetic, geography, history, and other elementary-school subjects. Such specialists would be able to make these subjects take on new life, and prospective teachers would have a deeper appreciation of the significance of each subject and its proper relation to all other subjects in the curriculum.

Of somewhat similar importance is the manner in which the normal schools, particularly the Hays Normal School, has enlisted in the campaign for the consolidation of rural schools. The commission can not commend too highly the efforts which are being expended in this direction. They should be encouraged and increased in every way. Better far that the State's money should be spent for so significant an educational cause than for any demand for vocational training now present in the State.

Chapter VII.

CORRESPONDENCE AND EXTENSION WORK.

In order to ascertain the amount of extension and correspondence work carried on at the several higher institutions in Kansas, the commission has asked for certain information, which is contained in the two following tables:

Correspondence study, 1921–22.

Institutions.	Students enrolled for college credit.	Enrollments in college courses.	Students enrolled for high-school credit.	Enrollments in high-school courses.	Students enrolled in noncredit courses.	Enrollments in noncredit courses.
University of Kansas	1,224	1,659	246	321	[1] 125	[1] 129
Kansas State Agricultural College	221	340	153	232	[1] 683	[1] 699
Kansas State Normal School	528	982	44	68	1	2
State Manual Training Normal School	480	785	.....	.....	.....	.....
Fort Hays Kansas Normal School	564	878	111	283	.....	.....
Total	3,017	4,644	554	904	809	830

[1] Noncredit and vocational courses.

Extension classes, 1921–22.

Institutions.	Extension classes conducted.	Enrollments.	Total semester hours' credit.	Total meetings of all classes.	Average number of meetings for each semester hours' credit.
University of Kansas	29	655	72	531	7.38
Kansas State Agricultural College	6	113	14	84	6.00
Kansas State Normal School	3	48	6	34	5.66
State Manual Training Normal School [1]	48	914	200	664	3.32
Fort Hays Kansas Normal School	8	72	32	107	3.34
Total	94	1,782	324	1,420	4.38

[1] Does not include high-school and night-school noncredit extension classes.

The offering of college and university work through correspondence courses and extension classes is now a commonly accepted practice at a large proportion of the institutions of higher learning, particularly the State universities and colleges. Through the operation of divisions established to promote work of this character the State institutions have extended their influence not only to all sections of the State but to all classes of people. The whole State has thus become the campus of the institutions, and the people have been made to feel that, if they can not go to the institutions, the institutions will

go to them with a variety of courses nearly as great as may be secured by students in residence.

Educators who have devoted themselves to a study of this great field of service are uniformly enthusiastic in its praise. They point out that the number of people who can be served has no limits. It is indeed no unusual situation at an institution to find as large if not a larger number of students taking work by correspondence courses than are registered for resident work. To be sure, few if any such students devote all their time to their studies, but the fact that thousands of young people are enabled to reduce the amount of residence work necessary for a bachelor's degree, together with the tremendous though immeasurable influence on the lives and fortunes of still greater numbers, justifies all the enthusiastic praise of those who have promoted and supported the extension movement.

The remarkable success of extension and correspondence courses of general character was doubtless one of the causes for the passage of the Smith-Lever bill by Congress in 1914 for extension in agriculture and home economics. As has already been stated the Kansas State Agricultural College and other land-grant colleges of the country are now receiving from the Federal Government considerable sums of money which are duplicated or exceeded in the States for the conduct of extension work in these fields.

Correspondence courses are, of course, offered under entirely different circumstances than resident instruction. The student does not come in daily contact with his instructor and fellow students, and his study will be at regular or irregular periods according to his habits or circumstances. He usually lacks extensive library facilities and and the inspiration of college and university life.

On the other hand, it is seldom that any but older students with a deep realization of what they wish in the way of an education even register for a course by correspondence. Such students are very likely to pursue their work even more zealously than resident students. Moreover, although they do not actually associate with their instructors and fellow students, their work is in many respects more closely supervised than that of resident students. Correspondence students are required to submit papers and exercises covering every part of a course. These papers and exercises receive the individual attention of instructors who thus have the opportunity to record a large number of grades for each course and to offer frequent and extensive comments on the work of a student.

The commission believes that extension classes should be offered in higher institutions with a view to reproducing so far as possible the exact conditions under which resident instruction is offered. The instructor should meet the class usually in double periods for a total length of time as great or practically as great as if the work were

taken in residence. Regular assignments in textbooks or collateral reading should be made, and the instructor should lecture or hold discussions to meet the requirements of the course. In this way contact with instructors and fellow students is preserved; regular and systematic study of texts and collateral reading is assured; and, since students are ordinarily older and more developed mentally the quality of work accomplished in extension classes is presumably fully equal to that in resident instruction.

In this view of the manner in which extension classes should be conducted the commission finds itself in entire agreement with what Mr. A. J. Klein,[1] in this study of class extension work, found to be good practice among the higher institutions of the country. The following quotation is taken from Mr. Klein's bulletin:

> University, college, or normal-school credit is in many cases granted for work which is similar to or reproduces resident courses. In general the basis of the amount of credit granted is the amount given for similar courses in residence. Satisfaction of the same entrance requirements is specified, with a few exceptions in the cases of persons who are over 21 years of age and for certain professions * * *. The same number of recitations is required as in residence work, the courses cover the same ground, and examinations similar to those given in residence are held. Somewhat curiously, however, residence faculties and administrations have seemed suspicious of extension classes even though resident professors conduct them. There seems to be some fear that the standards may in some way be lower. Because of this suspicion special precautions have been taken when credit is given to insure the maintenance of standards of the institution. Some institutions require a slightly greater number of hours of recitation for the same amount of credits, or will give only a fraction, usually one-half, of the credit granted for the same work when done in residence. In some cases more reading and a greater number of written reports are required. Many limit the proportion of the number of credits required for a degree which may be gained by class extension. The usual proportion when there is such a limitation is one-half, although there are institutions in which only one-third of the work required for a degree may be done in extension classes.

In another place in the bulletin Mr. Klein states:

> There seems to be a tendency in extension classes to lengthen the period of recitation from one hour to two hours. This is intended to reduce the number of times an instructor will need to meet a class in order to accomplish the work. Accompanying this tendency to lengthen the recitation period is a tendency to reduce the total number of recitation periods in a unit course. That is, courses which in residence work require a period of 32 weeks to cover are broken into two courses of 16 weeks with two hours of recitation each week.

Also the commission wishes to quote as follows from a series of resolutions adopted by the National University Extension Association at its annual meeting in 1921:

> In the case of direct class instruction, extension credit courses shall involve practically the same number of hours of class instruction as are devoted to similar classes in residence, and in the case of correspondence instruction the extension course shall be the equivalent in scope to that of the corresponding course offered on the campus.

[1] Klein, Arthur J. Class extension work in the universities and colleges of the United States. U. S. Bu. of Ed. Bul., 1919, No. 62, p. 62.

The commission has nothing but praise to offer for the fine spirit exhibited by the higher institutions in Kansas in their efforts to reach the thousands of aspiring young people in the State who do not feel that they can attend the institutions themselves. Such a desire is fully typical of the spirit of service which more thoroughly pervades the State institutions of higher learning to-day than ever before.

From all indications it is evident that the extension movement is only at the beginning of its possibilities. In Kansas, notwithstanding the fact that all five of the higher institutions have been engaged in developing extension work, only the surface has so far been touched, and the next 10 to 20 years will see a tremendous expansion of the movement, provided of course it is conducted on a wise and sound basis.

By referring to Table 21 in the appendix, it becomes apparent there are at the several institutions certain divergencies of practice in connection with the conduct of correspondence courses and extension classes, some of which are important. For example, the agricultural college has fixed no limit to the number of hours which may be offered by correspondence and extension credit for the bachelor's degree other than that a minimum of one year must be taken in residence, while the other institutions specify 60 hours or 50 per cent of the course as the maximum. At the agricultural college, on the other hand, a considerable portion of the correspondence courses are conducted by full-time extension workers, while the other institutions depend nearly altogether on the regular faculty. There is also some divergence of practice in the amount of the fees to be charged as outlined by the board of administration a few years ago.

All of the higher institutions follow the commonly accepted standard of outlining eight correspondence lessons for each semester hour of credit. There are therefore 16 assignments for two-hour courses; 24 for three hours; 32 for four hours, and 40 for five hours credit.

Extension classes are, however, combined with correspondence work at the Pittsburg and Hays Normal as against the practice at Manhattan, Emporia, and Lawrence of keeping the two kinds of work entirely separated. As conducted at Hays and Pittsburg, extension classes are supplementary to correspondence course work. When the classes are organized, students are assigned a regular number of the correspondence lessons for each meeting of the class. The correspondence lessons thus take the place of other types of class assignments at the other institutions. For example, at the university an instructor meets a class 15 double periods with certain class assignments for each period for a 2-hour credit course; at the agricultural college and at the Emporia Normal School there are 12

meetings of classes for similar credits; at the Hays Normal there are 9 meetings of classes in 4-hour credit courses; and at the Pittsburg Normal from 15 to 20 meetings for 5-hour credit courses. At the Hays Normal and the Pittsburg Normal students are expected to complete about four correspondence lesson assignments for each meeting of a class.

The assumption at Hays and Pittsburg is that students do the correspondence lessons in the regular way and in addition have the benefit of meeting the instructor in a certain number of class lectures or discussions. The commission believes, however, that these two institutions have been unwise in the extent to which extension classes have been combined with correspondence work. It is obvious that in assigning to a class three or four correspondence lessons, each of which is supposed to represent the equivalent of the work accomplished at two ordinary class recitations, students are expected to complete an unusually large amount of work for every meeting of an extension class. The combination inevitably takes on more of the nature of an extension class than correspondence work, particularly when, as is sometimes the case, the correspondence lessons are graded immediately before or after each meeting of the extension class, without the formality of going through the central office of the extension division. Under these circumstances the commission is convinced that the amount and character of work which students present for four hours of credit at Hays and Pittsburg is neither the equivalent of the usual correspondence course of 32 assignments nor of the work accomplished in two extension classes each meeting, as at the university, for 15 double class periods with regular text and collateral assignments.

The commission wishes therefore to recommend that extension classes and correspondence work as now combined at the Hays and Pittsburg Normal Schools be more clearly separated; that approximately the same amount of time be devoted to classroom work for each credit hour as is required in resident instruction; and that the directors of the several extension divisions be called together for the purpose of agreeing upon a common method of conducting extension classes in line with accepted practice in other States. There are also a number of other matters about which there should be general agreement among the several institutions. The commission suggests the following items among others:

(*a*) The number of courses and hours which may be taken by a student at one time.

(*b*) The number of courses and hours which may be completed by a student within 12 consecutive months.

(*c*) Correct existing maladjustments in fees charged.

(*d*) Provide against mixed classes with unequal previous preparation in extension study.

(*e*) Consider whether a limit should be placed on number of credits earned by correspondence study which may be offered for entrance to college.

(*f*) Fix for all the institutions the amount of credit toward the degree and the life certificate that may be offered either by correspondence or by extension class study, or by both combined. The commission is of the opinion that the 60 hours now most commonly allowed is too high a proportion of the requirements for the degree to be satisfied by nonresident study. From one-half to three-fourths of this number of hours would seem to be generous provision.

(*g*) Establish regulations preventing or controlling the carrying of correspondence courses by students in residence.

(*h*) Establish procedure for examining entrance requirements and prerequisite training for all persons asking to be enrolled in either phase of nonresident study. There seems to be the greatest laxity in both of these matters, a situation which tends toward inferior standards in the work.

(*i*) Determine the distinctions to be observed between correspondence study and extension class study, and to what extent outlines and assignments may be used interchangeably.

(*j*) The number of assignments and general requirements to be observed for each credit allowed.

(*k*) The need for a special staff of readers for the proper conduct of nonresident study.

(*l*) Fix the number of visits by the instructor to extension classes. The diversity of practice here militates against comparable ratings for work done.

(*m*) The minimum extension class which will be allowed.

(*n*) District the State so as to obviate overlapping in travel of instructors in meeting extension classes.

(*o*) Consider thoroughly the educational equivalence of the correspondence or extension class study and the resident instruction, and what types of courses may properly be offered by correspondence and extension classes.

The matters about which there should be agreement raise the very important question as to whether there should not be some centralization of the extension service performed by the several institutions. The commission has in mind not only the elimination of annoying differences in the conduct of the work but also the waste of all five institutions in attempting to develop work most of which after all is of similar character. Consequently each institution, with the exception of the agricultural college, is compelled to depend almost wholly on the resident faculty to make the outlines and grade the papers in the various correspondence courses. The commission is convinced that the quality of correspondence work is greatly increased

when it is conducted by competent instructors on practically a full-time basis. For this reason it seems to the commission that, although each institution should preserve its autonomy in developing correspondence work, it would be desirable for the board of administration and the higher institutions to consider whether it would be feasible to establish some central organization to assign the outlining and grading of courses to a single instructor who in one instance might be located at the university and in others at other institutions. In this way it would probably be possible to employ practically full-time instructors in nearly all fields of work. If such an arrangement can be worked out in Kansas, the commission is convinced that it will result in better standards of correspondence work and enable the entire field of correspondence study to be promoted with greater vigor and unity.

EXTENSION IN AGRICULTURE AND HOME ECONOMICS.

Under the provisions of the Smith-Lever Act of 1914 the agricultural college received during 1921–22 the following sums of money to conduct extension work in agriculture and home economics:

State appropriations	$35,500.00
Federal Smith-Lever funds	90,641.37
State Smith-Lever funds	80,641.37
Supplementary Smith-Lever funds	33,600.57
United States Department of Agriculture appropriation	11,400.00
Total	251,783.31

With this money the agricultural college conducts a large variety of extension service, including county and home demonstration agent work, farmers' institutes and extension schools, boys' and girls' club work, and rural engineering.

It would be impracticable here to outline in detail the numerous projects which the extension division has under way. It seems sufficient to state therefore that the extension work is being prosecuted with vigor and, so far as the commission was able to determine after a very brief study, wisely.

The commission noted with pleasure the fact that 60 out of the 105 counties in the State now have county agents. It is hoped that the number of home demonstration agents may soon be increased considerably. (Table 20.)

Chapter VIII.

MISCELLANEOUS MATTERS.

THE MEDICAL SCHOOL.

Inasmuch as an independent report on the medical school of the university has been made to the board of administration by Dean E. P. Lyon, of the University of Minnesota, the commission has assumed that it should confine its attention and recommendations to the remainder of the higher educational situation in Kansas. However, as an evidence of its keen interest in the development of medical education, the commission wishes to make certain suggestions concerning the value of medical education to the people of the State.

As is well known, there has been during the last 30 years marked development in the field of medical education. This development has resulted largely from the emphasis which has been placed on higher standards in the medical schools. In Kansas, as in other States, there occurred a merger of medical schools, which gave to the medical school of the university, located at Kansas City, Kans., a clear field of work. The university medical school was therefore presumably under obligation to train a considerable portion of the physicians who were needed in the State.

From evidence which has come to the commission, the university medical school, on account of a long series of small State appropriations, resulting in inadequate buildings, equipment, and faculty, has been unable to perform its functions on as extensive a scale as might reasonably have been expected. For example, the statistics of the Council on Medical Education of the American Medical Association covering the year 1920-21 show that the number of medical students being cared for at the Kansas University Medical School in 1920-21 was a little less than one-half the total number of Kansas students who were attending medical colleges. During the five years from 1917 to 1921, inclusive, the Kansas State Medical Board registered 407 physicians. The university medical school during this same period graduated only 150 students, or a little more than one-third the number of physicians who registered in the State.

It seems apparent therefore that no other part of the State's higher institutions has been so starved for appropriations as the medical school. Fortunately, the last legislature appreciated the

desperate circumstances of the medical school and provided an appropriation sufficiently large to make a good beginning at an entirely new plant on a new and favorable site. The State is to be congratulated on this wise action, and the next legislature should bend every effort to provide another building appropriation as large as that made at the last session, and so on, until the State has a medical plant and a medical school adequate for its needs and worthy of its high position among the American Commonwealths.

GRADUATE STUDY AND RESEARCH.

The superior character of the graduate work of the University of Kansas is attested to by the fact that the university has for a number of years been one of 25 universities belonging to the Association of American Universities, an organization which is composed of institutions recognized as fully capable of giving graduate instruction and conducting research in a variety of fields of higher education. Reference to the statistical tables shows that in the 10 years from 1912 to 1921 the number of advanced degrees granted at the university was 542. (Table 13.)

The figures show that the university has so far confined itself almost exclusively to graduate instruction for the master's degree. The commission commends the wisdom of this policy up to this time, while calling the attention of the governing board and the State to the fact that the time is very close at hand when the university should be encouraged in a number of lines to carry on more extensive research and advanced study than that represented by the master's degree. In all the Southwest there is not for many hundreds of miles an institution which has the same opportunity to develop graduate work as the University of Kansas. The State will be lacking in its opportunity to develop a graduate school comparable in importance with the State universities of Iowa, Michigan, Minnesota, Illinois, and Wisconsin, if it does not encourage the university to take that position of leadership in research and graduate study which its location places within its grasp. There should therefore be at the university a conscious development of graduate study in a number of lines leading to the Ph. D. degree.

It should be remembered also that at the earliest possible time the State is under obligation to train leaders not only in the elementary and secondary fields of education but also for the higher institutions in Kansas. Unless a State has facilities for this purpose, it will necessarily be compelled to look to other States to supply it with leaders in the realm of higher education. A State with the resources of Kansas should plan definitely to do its full share of this important work.

The university has taken a number of important steps to develop graduate work. There are, for example, 15 university fellowships

which are open to graduates of the university or other comparable institutions. In addition to these fellowships, the university about 10 years ago very wisely began the policy of offering annually a fellowship to a graduate of ability and promise at 10 of the privately supported colleges in the State. These fellowships have stimulated and encouraged a large amount of graduate work at the university.

Largely as a result of the stimulus received from the organization of the National Research Council in Washington the university a few years ago appointed a research committee to whom is left the distribution of an annual research fund of $4,000. The fund is granted to members of the faculty for the purpose of paying expenses in connection with the conduct of particular research projects approved by the committee. The results of this annual grant have been most beneficial, not only in increasing the amount of valuable research done at the university, but also in checking up the research activities of each member of the faculty.

The research activities of the university have also been encouraged by the publication facilities offered by the university in connection with the Humanistic Studies, the Science Bulletin, the Biological Survey, the Geological Survey, and industrial research in chemistry. It has been customary for the university to set aside annually $500 each for the Humanistic Studies and the Science Bulletin. The Biological Survey receives $900 per year. The Geological Survey uses annually about $2,500 of its appropriation for publication purposes.

The commission is convinced that the university has wholly inadequate facilities for publishing research results. The infrequent appearance of monographs through the Humanistic Studies and the Science Bulletin provides an exceedingly meager avenue for the publication of research monographs. The State university should by all means provide more adequate means to make available to citizens of Kansas and other States the very valuable contributions to scientific and humanistic knowledge which are being made by the faculty and graduate students at the university.

The center of research at the agricultural college has naturally been the agricultural experiment station, which was established at Manhattan following the passage of the Hatch Act by Congress in 1887. According to this act and the subsequent Adams Act in 1906, each State in the Union now receives annually $30,000 per year for the conduct of agricultural research. At Manhattan fairly generous additions to this sum have been made through the annual appropriations received from the State.

The college has wisely been following the policy of employing members of the agricultural faculty, who are expected to devote

a part of their time to teaching and a part to investigation. In this manner the maximum efficiency of men is secured both for resident instruction and for research.

The agricultural college has also established an engineering experiment station which has worked under the same difficulties as the one at the university.

Although the agricultural college was authorized in 1877 to confer the degree of master of science, the graduate work of the institution is really of fairly recent origin. Graduate study is now in charge of a council of representatives from the several divisions of the college. The conditions established for the master of science degree are much the same as at other reputable graduate schools. No attempt has yet been made to do graduate work beyond that represented by the master's degree.

During the year 1921–22 there were 158 persons registered for graduate work. Of this number, 96 were regular members of the teaching staff and 9 were graduate assistants on half time.

Sixty-two persons have received the master of science degree during the last 10 years, as follows:

1912	6	1917	8
1913	4	1918	6
1914	8	1919	4
1915	6	1920	6
1916	7	1921	7

Of the total number, 19 were in agriculture, 39 in general science, 1 in home economics, and 3 in engineering.

Inasmuch as the college did not raise its entrance requirements to 15 units until 1913, there were during the year just closed 10 graduates of the institution registered for graduate work who were required to complete "supplementary minors" in order to clear the way for a standard master's degree. Two students from other agricultural colleges were required to do the same thing.

The commission was pleased to see the interest which the agricultural college is taking in the development of graduate and research work. As is the case with the university, there is an unusual opportunity for the State to develop a noteworthy institution for leadership in the great Southwest. Nothing will contribute to this end more than adequate attention to advanced research work in the major functions of the college.

REGULATORY AND POLICE WORK.

Among the noteworthy results of research in the laboratories of higher institutions has been the discovery of remedies for the prevention of diseases in plant, animal, and human life. After the conditions producing these diseases had been brought to light,

it was natural that the State should take steps to eradicate them. Accordingly, from time to time the several States, including Kansas, have passed laws establishing organizations to prevent or eliminate disease conditions or causes and to insure the use of standard materials.

In 27 States these duties, so far as they relate to agriculture, have been conferred on independent officials or State boards, as, for example the board of agriculture; in 9 States these duties are divided between such State officials and the State agricultural college; and in 5 States they are carried on only by the agricultural colleges. It will be seen, therefore, that State officials and State boards are doing much more of the police and regulatory work than the agricultural colleges. If the opinions of agricultural college officials prevail, the agricultural colleges will be entirely relieved of this work. Statements secured for the commission from 41 of the agricultural colleges in the country showed only 4 institutions favorable to the agricultural college performing these duties and 37 opposed.

The following replies are typical of those received from the several States:

"I feel that the time and energies of experiment station men should not be burdened with work of this nature."

"I believe that the best way is for the State to have one division for research work and a separate division for regulatory work."

"We oppose it, believing that this duty belongs to the administrative branch of the State government."

"Whether such laws should be administered by the experiment station depends upon conditions in the State. I favor administration under conditions that prevail here."

"I think that the administration of such laws by the station, on the whole does more harm than good to the station itself. The station is, or should be, a research institution, and such police duties more logically belong to the State department of agriculture."

"My observation has been that the loading of the experiment station with police work has detracted from and interfered with investigations."

In Kansas both the agricultural college and the university have been charged by State law with the regulation of certain important police and control functions. Among these duties at the university are: Testing of water supply for municipalities; testing of food products; testing for certain diseases; and in conjunction with the agricultural college, State entomological work. At the agricultural college these functions are naturally more extensive than at the university, including control of commercial fertilizer sales; commercial feeding stuffs; live stock remedies; live stock registry; dairy work; licensing the sale of anti-hog-cholera serum; entomological work; and the testing of road materials used in the construction of Federal aid roads.

In the consideration of the establishment of regulatory and police duties at the State institutions of higher learning, it should be realized that there are two very different functions to be performed, (1) the

detection and location of disease-producing conditions or the presence of nonstandard materials through laboratory tests, following which is (2) the actual police duty of eliminating or removing the illegal conditions or enforcing the use of standard materials and ingredients.

The first function is an educational function which can naturally be performed best where, as at the State universities and colleges, there are extensive scientific laboratories staffed with specialists from a variety of fields. The opportunity to conduct the research incident to this control work keeps the staff in constant contact with the problems which usually are being subjected to further research for the discovery of improved methods to combat disease-producing conditions or higher standards for materials and ingredients. The research, therefore, necessary in connection with police and control work is an eminently proper and very desirable function for the institutions of higher learning to perform for the State.

On the other hand, State universities and colleges were never established and should not now exist to govern the State. The functions of these institutions are teaching and research. Police and control work is administrative in character and belongs properly to the administrative arm of the State government. With proper organization, laws of this character can be executed effectively by State officials and boards, thus relieving the higher institutions of the embarrassments of administrative work, in order that the faculty may devote their undivided attention to the legitimate functions of the institutions.

That this opinion is shared by the great body of educational administrators in higher institutions is evident from reports which from time to time have been presented to the Association of Land-Grant Colleges. The following report made by the committee on experiment station organization and policy in 1915 is typical:

> In addition to the three divisions of the agricultural college which we have now begun to recognize in research, college teaching, and extension, we now recognize at least one other group which has to do with regulation—the machinery for the enforcement of laws for the protection or promotion of agriculture. This is not experimental, although the need for it and the methods for it often were developed by the experiment stations. They should continue to furnish information on which it is based. But logically it is just as much a part of the State governmental machinery as the enforcement of other laws and measures. The States should prepare to take care of it and in many cases they are now in far better condition to do this than formerly. The retention of such measures by the agricultural college is retarding the formation of strong State departments of agriculture, which it is the interest of the colleges to promote.
>
> Is there any more reason for making the experiment station a part of the governmental machinery of a State in the enforcement of these laws than there would be in intrusting to a college department of education the enforcement of any good education law which it had suggested? Or to the college of pharmacy the oversight of laws which it has urged? The assignment of regulatory functions to an educational institution is to be justified only on the grounds of temporary expediency. It diverts attention from the real work and purpose of the institution, and it often places the institution in a wrong attitude before the people. It is a confusion of government and education.

For the reasons which have been set forth the commission is clearly of the opinion that the university and the agricultural college should be relieved of the administrative duties incident to police and control work and that these duties should be conferred on officials and properly organized boards at the State capitol, while leaving to the respective institutions the testing necessary to carry out the intentions of the laws. For this work there should be financial arrangements which make it unnecessary for the higher institutions to use funds granted to them for other purposes.

SCHOOL OF AGRICULTURE AT MANHATTAN.

Until 1913 a preparatory school was maintained at the State agricultural college. At that time on account of the increasing high-school facilities in the State it was decided that there was no further need for the institution to maintain a preparatory school, and accordingly it was abolished. However, in view of the constant demand for vocational work, particularly in agriculture, a demand which at that time could not be satisfied elsewhere in the State, it was decided to establish a secondary vocational school. The objects of this school are very well set forth in the college catalogue, as follows:

> The school of agriculture is organized to meet the needs of young men and young women of Kansas who may need instruction more closely identified with the life of the farm, home, and shop than that provided by the high schools of the State. It is also intended to meet the needs of those men and women who find themselves for any cause unable to complete an extensive course of collegiate instruction, yet who feel the necessity of a practical training for their activities in life. A large part of the student's time in the school will be spent in the laboratories and in contact with the real objects of his future work. An element of culture and general information is provided for in several semesters of English for each course and in work in history, economics, citizenship, physics, and chemistry.
>
> The school of agriculture is not a school preparatory to the college. Its sole purpose is to fit men and women for life in the open country, and to make country life more attractive; to make the workshop more efficient; in short, to dignify and to improve industrial life.

Students who are 14 years of age or older and who have completed the eighth grade are admitted to the school without an examination. There are three-year curricula in the three fields of agriculture, home economics, and the mechanic arts. The registration in the school since its establishment has been as follows:

1913-14	658	1918-19	216
1914-15	560	1919-20	[1] 244
1915-16	484	1920-21	[2] 280
1916-17	422	1921-22	[3] 280
1917-18	231		

[1] Including 30 Veterans' Bureau men.
[2] Including about 90 Veterans' Bureau men.
[3] Including 143 Veterans' Bureau men.

It will be seen that had there not been a recent influx of trainees from the Federal Board for Vocational Education, the number of students in the school of agriculture would have continued to decline, as prior to the World War. Inasmuch as the demand for vocational education for Federal trainees is doubtless only temporary, the question may reasonably be raised as to the desirability of continuing the school of agriculture.

The causes for the decline in the registration in the school are as follows: (1) Under the Smith-Hughes Act there are now 78 high schools in Kansas offering vocational agriculture on a two or four year basis. In addition to these schools, there are 482 other high schools which offer a course in general agriculture. There are 441 high schools which give instruction in home economics, and a reasonable number which teach manual arts or trades and industries. Consequently, the need for vocational education for boys and girls of normal high-school age is rapidly being met by the public high schools. (2) The extension service in agriculture and home economics operating through county and home demonstration agents and through numerous other channels is rapidly meeting the vocational needs of the adult farmers. (3) The fairly high fee of $33 per semester may have discouraged a few prospective students. (4) The fact that the school has been on a regular nine months' basis has probably made it impossible for young men on the farm to devote so large a proportion of the year to securing the desired education. (5) The establishment of the 15-week short course in home economics for housekeepers seems to have met, partially at least, the needs of students seeking short vocational courses in that field.

In the general decline of attendance at the school of agriculture the number of students in home economics and mechanic arts has been reduced almost to the vanishing point. For example, during the year just closed the enrollments were as follows: Mechanic arts, 17; home economics, 16; agriculture, 139.

Not only has the registration in the school of agriculture declined on account of the causes which have been mentioned, but there is clear evidence that the school is not now fulfilling the function for which it was originally created, but has become largely a preparatory school to the college. In the first place, more than 90 per cent of the students who were enrolled in the school during the past year had had more than an eighth-grade education. At the same time, for the year 1921–22 the average age of these students (exclusive of Federal Board students) was 20.08 years, whereas the average age of the freshman class in the college was 20.7 years. With a little more preparation, therefore, many of these students are fully capable of entering the freshman class in the college. In recent years a very large portion of those who graduate from the school of agriculture do this very thing, as the following table reveals:

Graduates of the school of agriculture entering college.

Years.	Total number of graduates.	Graduates entering college.
1915	5	1
1916	9	5
1917	11	3
1918	11	5
1919	9	3
1920	16	10
1921	15	14

In addition to those who graduate, there is also a considerable number of students who do not choose to graduate from the school of agriculture but who are allowed to select their own curricula to meet the entrance requirements of the college. If these students were included, it would become even more evident that when the Federal trainees are excluded, the school of agriculture has become primarily a preparatory school to the college.

The commission is clearly convinced that a preparatory school at the agricultural college is needed to-day even less than it was when the preparatory department was abolished 10 years ago. It wishes to recommend, therefore, that steps be taken at an early date to reorganize the school, in order to meet whatever demand there is in the State for adult vocational education of less than college grade in agriculture, home economics, and mechanic arts. The college will need to carry out this reorganization with reference to the existing 15-week short course for housekeepers and the 8-week short course for farmers, both of which, although declining in enrollments, have nevertheless fulfilled important functions. The commission is of the opinion that a two-year course of study in agriculture covering not to exceed three to six months each year would find a ready response among a considerable number of persons above high-school age who would be able to leave the farm for one-half the year in order to secure further education.

THE RESERVE OFFICERS' TRAINING CORPS.

The agricultural college has, of course, ever since its establishment been required by the terms of the Morrill Act to teach military science. Accordingly, there is a well-defined tradition in military instruction which has been carried over into the present organization of Reserve Officers' Training Corps units in the colleges and universities of the country.

At the agricultural college, therefore, there have been organized the following units, with students divided as follows, during the second semester of 1921–22: (1) Infantry, basic courses (freshmen and sophomores), 311; advanced courses (juniors and seniors), 48;

(2) coast artillery, basic courses, 349, advanced courses, 33; (3) veterinary, basic courses, 12 advanced courses, 18; total, 771.

At the university there was no military instruction until the organization of the Students' Army Training Corps, toward the close of the World War. Owing to the difficulties encountered with that organization, the establishment of the Reserve Officers' Training Corps has made slow but steady progress. There were 200 students in 1921–22 registered in artillery and engineering units. These students were divided as follows: Seniors, 2; juniors, 38; sophomores, 56; freshmen, 104. Next year the university will have a senior class in Reserve Officers' Training Corps for the first time. It is expected that the enrollment may then reach 300 students.

The Reserve Officers' Training Corps at the university is, however, very greatly hampered by the lack of facilities. Office space is to be had only in the athletic trophy room of the gymnasium; there is no separate classroom for military work except an unheated attic room; the artillery is unhoused; there is a very unsatisfactory indoor range; and there is no space for indoor drills and very little for outdoor work.

If the university wishes to have a Reserve Officers' Training Corps organization at all, much should certainly be done to enable the officers to carry on the work under more satisfactory conditions.

THE CATALOGUES.

In the appendix will be found a table showing by departments for each institution the number of courses offered and the number given for each academic year, 1920–21 and 1921–22. (Table 11.) When summarized the figures for each institution are as follows:

Number of courses offered and given, 1920–1922.

Institution.	1920-21			1921-22		
	Courses offered.	Courses given.	Percentage of courses offered that were given.	Courses offered.	Courses given.	Percentage of courses offered that were given.
University of Kansas	1,157	863	74.0	1,220	863	70.7
Kansas State Agricultural College	813	608	74.8	860	682	79.3
Kansas State Normal School	377	256	68.2	392	260	66.3
Fort Hays Kansas State Normal School	319	221	69.3	371	232	62.5
State Manual Training Normal School	510	382	74.9	513	415	80.9

From this table it seems very likely that all the institutions could very profitably examine the offerings in their catalogues with a view to eliminating courses which are not likely to be given.

Also, in the case of the agricultural college, by reducing course descriptions the catalogue could easily be reduced in size without impairing its usefulness. At the Pittsburg normal school the catalogue is inexcusably large. The long curriculum vitae following the name of each member of the faculty, as listed at the beginning of the catalogue, is unnecessary. Also the frequent reprinting of course descriptions should be avoided by eliminating the artificial divisions into which the teaching departments have been separated. In this connection it may be pointed out that, when an institution grants neither a bachelor of arts degree nor a straight bachelor of science degree, and when an institution may be presumed to be primarily a teacher-training institution, it is improper to include catalogue headings under such a title as "College of liberal arts and sciences." Particularly is this true when, so far as the commission could learn, so important a departure in policy was never referred to the board of administration for its authorization. In view, also, of the great preponderance of vocational subjects at the Pittsburg normal school as compared to those which are offered in the professional engineering field, the commission doubts seriously the advisability and propriety of using the word "engineering" as a heading for a division in the catalogue.

All the normal schools could be more careful about calling attention in the catalogues to the courses which are prerequisite to the advanced courses.

GRADES OF STUDENTS.

Of great significance is the movement among American higher institutions at the present time to induce students to strive for quality in grades, in addition to securing the mere quantity necessary to meet the graduation requirements. Sensing the importance of this matter the committee on standards of the American Council on Education, already referred to, recommended the following standard to the several accrediting agencies in the country:

"A college should require for graduation the completion of a minimum quantitative requirement of 120 semester hours of credit (or the equivalent in term hours, quarter hours, points, majors, or courses), with further scholastic qualitative requirements adapted by each institution to its conditions.

The commission thoroughly approves of this principle and is pleased to see that the college of liberal arts and sciences and the schools of engineering, medicine, education, law, and pharmacy at the university have all adopted regulations requiring all students who graduate to present from two-thirds to three-fourths of their credits in grades of A, B, or C. The agricultural college has also adopted a "point" system leading to the same objective. The commission commends these or similar schemes to the favorable consideration of the other three higher institutions.

Chapter IX.

FINANCIAL SUPPORT OF THE HIGHER INSTITUTIONS.

A number of situations encountered during the conduct of the survey has impressed the commission deeply with the fact that the State should by no means falter in the somewhat more liberal financial support of its higher institutions begun during the present biennium. The commission is convinced that the appropriations made to the five higher institutions have been economically expended. While it has not been possible to compare the use of room space and teaching load at the several institutions with similar figures at other institutions, there is general evidence that the Kansas institutions suffer from lack of space fully as much as other State institutions, and that the faculties are rendering as unselfish and devoted service as can be found anywhere in the country.

In the meantime it appears certain that Kansas is not living up to its opportunities and duties in the realm of higher education, with a population almost unaffected by any adverse influences from foreign immigration, with a very high rate of literacy, and few States which exceed it either in the number of students in secondary schools or higher institutions according to its population, with wealth as evenly distributed among the population as can be found in almost any State in the Union; yet Kansas somehow does not attract students to its higher institutions as it should. In other words, Kansas is not keeping pace in higher education with other such great States as Illinois, Indiana, Michigan, Wisconsin, Ohio, Iowa, and Minnesota. (Tables 18 and 19.)

SALARIES.

In order to accomplish these ends there needs to be a further generous increase in the scale of salaries at the university and at the agricultural college. The commission realizes that increases in salary at State universities and colleges, for the year 1922–23 will seldom be as extensive as for the year just closed. Nevertheless it believes that the university and the agricultural college particularly are faced with so grave a crisis in this respect as to relegate them to a secondary position in higher education as compared to other great State universities and colleges, unless they very soon increase the salary basis to meet their competitors.

In order to ascertain how the salaries at the higher institutions in Kansas compare with those at similar higher institutions in the

country, the commission has used salary statistics gathered by the United States Bureau of Education covering the year 1921–22. Reference to the succeeding table shows the average salaries for professors, associate professors, assistant professors, and instructors at the University of Kansas and the Kansas State Agricultural College, together with the average salaries for the same faculty grades at 84 State universities and colleges. Inasmuch as the 84 institutions represent all types and sizes of higher institutions located in every section of the country, it seemed wise to choose 12 State institutions located in States comparable in type and importance with Kansas. For this purpose the following 12 institutions were selected: University of Illinois, Indiana University, Purdue University, Iowa State College, University of Michigan, Michigan Agricultural College, University of Minnesota, University of Nebraska, Ohio State University, University of Missouri, the State University of Iowa, and the University of Wisconsin. The table is as follows:

Comparison of average salaries at State universities and colleges, 1921–22.[1]

Institutions.	Professor.	Associate professor.	Assistant professor.	Instructor.
University of Illinois	$4,918	$3,761	$2,974	$1,875
Indiana University	3,600	3,300	2,750	1,750
Purdue University	3,000	2,500	2,000	1,800
State University of Iowa	4,011	3,307	2,778	1,882
Iowa State College [2]	4,108	2,984	2,311	1,786
University of Michigan	5,025	3,700	2,850	1,870
Michigan Agricultural College	4,664	3,362	2,706	2,072
University of Minnesota	4,456	3,394	2,695	1,832
University of Missouri [2]	3,454	2,770	2,384	1,702
University of Nebraska	3,786	2,842	2,500	1,940
Ohio State University	4,250	2,500	2,750	1,800
University of Wisconsin	5,075	3,612	2,820	1,911
Average for 12 institutions listed above	$4,195	$3,169	$2,626	$1,851
Median average salaries of 82 State universities and colleges reporting to the Bureau of Education	3,392	2,800	2,300	1,800
University of Kansas	$3,400	$2,600	$2,100	$1,600
Kansas State Agricultural College	3,443	2,550	2,148	1,659
Average, University and Agricultural College	3,421	2,575	2,124	1,629
Percentage of average of 12 institutions listed above over Kansas average ..... per cent..	22.6	24.2	23.6	13.6
Percentage of average of 82 State universities and colleges over Kansas average ..... per cent..	0.8	8.7	8.3	10.5

[1] These salary rates have been compiled from statistics submitted to the Bureau of Education by the institutions in the autumn of 1921, except as noted.
[2] From reports sent direct to the survey commission.

In comparing the salaries at the State agricultural college with those at the university it would be recalled that a high percentage of the faculty at the former institution are paid on an 11 months' basis, whereas all, or practically all, the faculty at the university are on a 9 months' basis. Those who teach in the summer school receive extra compensation. For this reason, in the above comparison of salaries at the university and the agricultural college, it has been

thought best to take the average salary of the two institutions and compare this figure with average salaries at the other State universities and colleges where both salary bases are also used.

The commission was frankly amazed at the poor showing of the salaries at the University of Kansas and the Kansas State Agricultural College as compared to those at other State institutions in the United States. It is difficult to believe that these two institutions, which ought to rank in salaries with those among the upper one-fourth of State higher institutions in the country, are, except in one instance, below the average for the entire country, including a great number of small State institutions located in Southern and Western States.

It is not with the average State in the Union, however, that Kansas would wish to be compared. The people of this Commonwealth think of their great State as comparing in importance with Iowa, Illinois, Michigan, Wisconsin, Indiana, Minnoesta, Ohio, and Missouri. Yet when the average salaries at the University of Kansas and the State Agricultural College are compared with those at 12 State colleges and universities located in those States, it is found that the average salaries exceed the average at the university and the State agricultural college by, professors, 22.6 per cent; associate professors, 24.2 per cent; assistant professors, 23.6 per cent; instructors, 13.6 per cent.

These figures tell their own story. Kansas is far behind other progressive States in the salaries which are paid to the faculty at the university and the agricultural college. The fact that this same condition has existed for several years accounts in no small measure for the loss of promising and progressive members of the faculty, many of whom could have been retained if the salary basis had been higher.

At the same time there are a number of older members of the faculty at the higher institutions who have rendered long and highly honorable service to the State who naturally have to be replaced by younger men from time to time. Upon such occasions the administrative officials should have the opportunity, if it seems desirable, to go to other important institutions to bid for the services of young men of promise. Barring this opportunity, an institution is forced to adopt the policy of always promoting members of the faculty to the more important positions, even though in some instances it is by no means the most desirable thing to do.

Such a condition is not worthy of the great State of Kansas. The figures show that Kansas ranks among the first three or four States in the Union as to proportion of its population in college and university. In other words, the people of Kansas as individuals appreciate the value of an education. The best educational service is the most worthwhile, and Kansas bids fair not to retain this su-

perior service unless it is willing to increase considerably the basis of salaries at the university and the agricultural college.

The evidence concerning salaries at the normal schools indicates a somewhat more satisfactory situation when compared to similar institutions in other States. Nevertheless, the commission is of the opinion that the State of Kansas can never have the quality of teacher-training it should have until the basis of salaries at the normal schools is raised considerably. There is and there can be no better investment for the State to make than the one it makes in the preparation of the teachers who give their lives to service in the public schools. For this work the highest type of ability and the most devoted sacrifice are urgently needed. The commission would be happy, therefore, to see new and higher standards of teacher preparation at the normal schools made possible through increased compensation for all grades of the faculty.

BUILDINGS NEEDED AT THE HIGHER INSTITUTIONS.

The commission has not undertaken to make a thorough inspection of the building needs of the five higher institutions, but those which seem most urgent are as follows: (1) University—medical buildings; chemistry building; biology building; home economics building; auditorium; training school building; (2) State agricultural college—power plant; library building; music rooms; home economics building; (3) Fort Hays Normal School—library; increased laboratory facilities; (4) Kansas State Normal School—music building; (5) State Manual Training Normal School—library; training school building.

Another building appropriation which the last legislature began and which by all means should be continued in the next biennium is that for dormitories. For many years Kansas neglected to provide any kind of dormitory facilities for the young women students at the five institutions. The appropriation made at the last session of the legislature was the beginning of the fulfillment of an obligation which should be continued by similar or greater appropriations until all young women students are properly and safely housed. The commission is convinced that good dormitory facilities will help to solve the social problems that always arise in student life.

BETTER EQUIPMENT.

Brief mention may be made, too, of the need for better equipment at the higher institutions. It scarcely seems desirable to single out departments at the several institutions, but the commission was impressed with the need for more adequate equipment at the university in the medical school, engineering, and home economics. The agricultural college should have better library facilities and engineering and home economics equipment. The Hays and Pittsburg

Normal Schools are very deficient in library facilities, and at Hays there should be much better equipment in sciences and home economics.

A MILL TAX.

One of the attempts at permanent progress agitated consistently and earnestly by State-supported higher institutions has been the method of having a tax of a definite number of mills for financial support. The campaign for this principle has gone forward until at the present time 18 States in the Union have committed themselves to this policy: Arizona, Arkansas, Colorado, Illinois, Indiana, Kentucky, Michigan, Minnesota, Montana, Nebraska, Nevada, Oregon, South Carolina (for Clemson College), Tennessee, Utah, Washington, Wisconsin, and Wyoming.

The arguments in favor of this method of financial support are simple and incontrovertible. In the first place the mill tax carries with it the idea of a lump appropriation, instead of a minutely itemized appropriation bill. The modern State university or college is a very complicated human organization which needs to readjust itself constantly to the changing demands which are made upon it. A lump appropriation through the mill tax provides a very desirable method of enabling the governing body to expend its money where it is most needed and to meet unexpected emergencies. This freedom means a great deal in the efficiency and effectiveness of the service which a higher institution can render the people of a State. In the next place, once the State has decided to use the mill tax policy the State higher institutions feel immediately that there is a deeper assurance of the continued and permanent financial support of the institutions. If the mill tax is sufficiently large to include the erection of buildings, the institutions are enabled to proceed with a definite building policy covering a series of years.

There is only one danger to which the mill tax principle has been liable, namely, a frequent popular assumption that it will not be necessary to increase the mill taxes. Anyone who is familiar with the rise and fall of the property assessments in a State as we have witnessed during the last few years will realize, of course, that such an assumption is absurd. In consenting to a mill tax for the support of higher institutions, therefore, the legislature and the people of a State should realize that any one of a number of conditions, including the growth of student body, may make it necessary to increase the rate of the mill tax.

In Kansas there has been an agitation for 20 years for mill tax support of the several higher institutions. On account of a provision in the State constitution, however, the movement made no progress until 1917, when the legislature, responding to public sentiment, passed a resolution submitting to a vote of the people a

constitutional amendment which, if passed, would enable the legislature to levy the desired mill tax. The measure was submitted to the people at the election of 1918 and was passed by a very large majority. It provided that:

> The legislature may levy a permanent tax for the use and benefit of the State educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment, and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the legislature as may be deemed necessary from time to time for the needs of said State educational institutions.

It will be seen that the provisions of the amendment very wisely assume the necessity of changes in the rate of the mill tax and the possible necessity of supplementary appropriations. The amendment was very well worded, and the State is to be congratulated on the wisdom of its passage.

It is to be regretted, however, that the legislature has not carried out the powers conferred upon it in this amendment. The commission therefore recommends that the legislature fix a mill tax sufficient to provide adequately for maintenance and the building needs of each of the higher institutions. By so doing Kansas will take her place among the many States which have taken this progressive step.

HIGHER EDUCATION AN INVESTMENT.

In recommending that the State of Kansas take these steps for the further and larger support of its higher institutions, the commission is firmly convinced that few other actions, if any, would so redound to the welfare of the people of the State. The amount of money which the various States in the Union are now spending on their higher institutions is impressive in size, but this fact, far from being lamentable, is an encouraging and propitious omen. Education in all its forms, including higher education, is by an individual considered to be, not a dead expense, but an investment assuring greater likelihood of an increased income, a more adequate conception of social and political problems, and a broader appreciation of culture and the refinements of life. The welfare of a State is only the sum of the things which make up the happiness of its individual citizens. If, therefore, a State is called on to support higher education for increasing numbers of its citizens, it is to be congratulated that it has the opportunity to make so sound an investment as a guarantee of its future material and social welfare.

In this connection it is perhaps not amiss to point out the fact that it is not higher education which costs the people of a State, but rather the lack of higher education. Anyone who will take the trouble to examine the statistics of those States where higher education is on a low level will be convinced that there is a close relation

between the number of educated people in a State and the wealth of a State. If a State does not invest money in education, its natural resources will go undeveloped, or they will be developed by the citizens of other States and consequently will be of minimum benefit to the State in which the natural resources are found. Transcending these material considerations in importance, however, is the cost to a State where the mental, social, and cultural possibilities of its citizens are undeveloped on account of inferior or inadequate facilities for higher education.

The commission is convinced that the State of Kansas is well able to make a substantial increase in the appropriations to the higher institutions. Attention has already been drawn to the increasing numbers of Kansas students who are attending higher institutions, many of them outside of Kansas. It would seem a strange paradox that the citizens of the State are financially able to send their sons and daughters in increasing numbers to the higher institutions and to pay their expenses for four years in college, but at the same time are unable to support more liberally the facilities for their instruction while they attend these institutions.

There is, however, better evidence of the ability of the State to support its higher institutions on a more substantial basis. Twelve other States in the Union, most of them sparsely settled States in the West, pay more per capita for the support of State institutions of higher learning than Kansas. (Table 5.) The University of Kansas and the State agricultural college secure from student fees and other sources 26.1 per cent of their income, which is very close to the average for the country. Moreover, statistics gathered recently by the governor's office in Kansas show that 11.2 per cent of the taxes in Kansas for the fiscal year 1922 were collected to defray State expenses, as against county and local expenses. Included in this percentage was 4.5 per cent, only, for buildings and maintenance of the State institutions of higher learning. In other words, out of each dollar paid in taxes the taxpayers of Kansas contributed about 2 cents to the university, a cent and a half to the agricultural college, and about three-fourths of a cent for all the normal schools; total, 4½ cents out of each dollar. Let us take the case of the Ness County farmer, cited as an example in the bulletin issued by the governor's office. The State appropriation for all educational purposes, including higher education, could be increased by 40 per cent—an action that would raise the higher institutions in Kansas to a par financially with Michigan, Illinois, and Wisconsin—and yet the Ness County farmer's taxes would be increased only from $51.39 to $51.83. It seems clear that the appropriations at all the institutions could be substantially increased without adding more than a few cents to the taxes of the usual property owners in Kansas.

To the commission it seems essential that the higher institutions should have the opportunity for greater service to the people of the State which increased financial support would afford. With almost no material resources in the early days the pioneer of Kansas founded these institutions of higher learning and dedicated them to the service of the State. The institutions have kept faith with the high purposes held by the founders. In these days of greater material resources and with far more need for higher education as a means of solving our complex social and economic problems, the people of Kansas should show no less faith in higher education and be no less courageous in its financial support than the early pioneers. With so exalted an educational vision Kansas will keep pace with its sister Commonwealths and rise continually to new levels of material prosperity and social welfare.

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Chapter X.

THE FINANCIAL ORGANIZATION

THE BUSINESS MANAGER.

Under the laws of the State the business manager is vested with the authority for spending the funds appropriated to the State institutions, and he is made responsible for the proper expenditure of these funds. As at present organized, the chief functions of the business manager may be said to be these: First, purchasing; second, checking pay rolls against salary schedules fixed by the board; third, supervising the letting of building contracts; fourth, accounting for funds and appropriations of the institutions; and fifth, general business direction.

The functions of the business manager's office are divided in a general way between, first, the educational institutions, and, second, the charitable, penal, and correctional institutions. One assistant business manager handles the business details of the educational institutions, and another assistant business manager handles the details of the other State institutions.

PURCHASING ROUTINE AT BUSINESS MANAGER'S OFFICE.

The business manager is the final authority for purchasing material, equipment, and supplies for all State institutions, and all requisitions must pass through his office. Standard materials and supplies are purchased at periodical lettings, with open competition, and contracts are made for the requirements of all State institutions covering a period of six months. Purchases of specialized equipment, material, or supplies which are not included in these periodical lettings are made from time to time as required. Liberal provisions are made for emergency purchases at institutions, but such emergency purchases must be confirmed by requisition through the business manager's office.

PAY ROLLS OF STATE INSTITUTIONS.

The business manager receives from the secretary of the board of administration copies of the budget of each educational institution, with copies of all minutes ordering changes in the pay rolls. All pay rolls from institutions pass through his hands, and all fixed salary items are checked against the official minutes as to correctness before forwarding to the State auditor for payment.

BUILDING CONTRACTS.

An important function of the business manager is the supervision over contracts for buildings. Bids for the construction of buildings, after plans have been prepared by the State architect, are received by the business manager and are tabulated by him, and, after contracts have been awarded, he has supervision over the construction of the buildings and the authorization of payments under the terms of the contracts.

ACCOUNTING PROCEDURE IN THE BUSINESS MANAGER'S OFFICE.

The business manager's office keeps accounts with funds and State appropriations. All disbursement vouchers from the several institutions are audited in his office, and are charged to the several fund and appropriation accounts in accordance with abstracts accompanying said vouchers. All institutional receipts are reported through the business manager's office for credit to proper fund accounts.

The business manager's office does not keep detailed accounts with the budget appropriations of the departments in the several educational institutions. These accounts are kept in the business offices of the institutions.

GENERAL BUSINESS DIRECTION.

The business manager is the business director of the State educational institutions, and as such he counsels with the heads of the educational institutions concerning the details of business operations at the institutions. He is the official adviser of the board of administration in business matters. Requests for appropriations to the State legislature pass through his hands and are tabulated by him.

BUSINESS OFFICES AT EDUCATIONAL INSTITUTIONS.

Business offices are maintained at each of the educational institutions, in charge of an official known variously as chief clerk, secretary, or bursar. In these offices accounts are kept with departmental budget appropriations. Pay rolls are made up in these offices, and signatures are secured from payees, and when certified by the president of the institution are forwarded to the business manager's office in Topeka for payment. The institutional business offices collect fees from students and income from sales, services, etc., and forward collections monthly to the State treasurer with a report to the business manager at Topeka. The institutional business offices check against budget appropriation accounts all requisitions for material, supplies, equipment, and miscellaneous expenditures before the requisitions are transmitted to the business manager.

These institutional business offices differ from the general practice in American colleges and universities, as the officers in charge have apparently no business administrative duties or authority outside of the mere routine work of collection and record keeping. In a general way these offices are simply relay stations for the transmission of business matters from the institutions to the business manager's office at Topeka.

THE BUSINESS OFFICE IN OPERATION.

All institutions operate upon a budget system. When the annual budget is prepared, estimates are made of the expected income for the succeeding year, and against this expected income appropriations are made for salaries and wages, equipment, and other expenditures. After the budget has been approved by the board of administration, it becomes the duty of the head of the institution to live within the budget, and to request changes in the budget from time to time if such changes become necessary. At the university and the agricultural college the responsibility for staying within the appropriations for equipment and miscellaneous expenses rests largely with the heads of departments, though the business office at the institutions in a general way through its purchasing ledger system keeps check of expenditures and orders outstanding against the several departmental appropriations. All appropriations for salaries are administered in the business office, where pay rolls are made out chargeable to such appropriations. At the normal schools, on account of the smaller volumes of business, the president can give more time to the details of departmental expenditures than is possible at the university or the agricultural college.

PURCHASING ROUTINE AT INSTITUTIONS.

As has been explained in preceding paragraphs, all purchasing is done by the business manager or under authority delegated by him to others, but in whatever manner a purchase is made, such purchase must be confirmed on official requisition and purchase order forms. Requisitions are made out by the department requiring equipment and supplies, and these requisitions are forwarded through the dean or otherwise to the business office at the institution, and after approval by the president or other official acting for him, are transmitted to the office of the business manager at Topeka, who makes the purchase. At the university and at the agricultural college, and perhaps at the other institutions, requests for quotations and correspondence with vendors are handled to a large extent by the departments, and after an order has been placed, the tracing for delivery and for invoices, the checking of material against order

and invoice, and any correspondence in regard to adjustment is carried on by the departments, except in special cases where the institutional business office or the business manager may be requested to handle such details.

The business manager relies upon the experts at the educational institutions for specifications as to make and quality of equipment and material required for educational departments. In certain lines he has prepared, through the assistance of the laboratories at the educational institutions, standard specifications with provisions for analysis of samples, and for checking analysis of material received against sample.

The business manager furnishes each institution with copies of contracts entered into at semiannual lettings for standard supplies. These semiannual contracts cover supplies for definite quantity and definite delivery conditions. Requisitions for supplies under these contracts are made out as needed by the institutions.

ACCOUNTING AT INSTITUTIONAL BUSINESS OFFICES.

As has been stated previously, the detailed accounting with budget appropriations is done in the institutional business offices, and these offices are, therefore, the only sources of information concerning the internal business operations of the institutions.

Through the pay roll and purchasing system, together with abstracts of disbursement vouchers and monthly summaries of funds and appropriations, disbursement transactions are handled in a fairly satisfactory manner, so far as funds are concerned, but the accounts with budgets and receipts are not so satisfactory, though in some ways well kept. No ledger accounts are kept with plant assets, the principal of endowment funds, or with investments. It is impossible to secure from the institutional business offices complete information concerning the assets and liabilities of the institutions. Accounts receivable are not concentrated in any one place, and collections of accounts due institutions are left largely with the departments. In a general way it may be said that the institutional business offices do not keep sets of books, but instead, collections of registers, with some ledger accounts. It is with reluctance that the commission feels it necessary to call attention to these matters for the reason that the work in the business offices of each institution, so far as it goes, is quite well done, and it is remarkable that so much work can be done with so few employees. The foregoing remarks are intended as a compliment to the personnel in the business offices, and as a criticism of a general business situation at the institutions.

The instructional and other departments at the university and the agricultural college are to a large extent separate business units.

This plan throws a great deal of responsibility concerning business matters on the clerks and heads of these departments, and scatters through many departments business details which are usually handled in central business offices with greater efficiency and at less expense. This arrangement makes it impossible for the central business office to do the detailed accounting which one usually expects in a central business office, and which is necessary if proper analyses of expenditures are to be made. While it is possible to scatter some accounting problems through several offices with periodic assembling of totals in a central office, this scattering should be under the direction and supervision of the central business office. It seems that no such authority for direction and supervision exists in the business offices at either the university or the agricultural college, and whatever detailed accounting is carried on in the separate offices is done without the supervision of the central office. While it may be the policy of the board of administration to keep the business offices at each institution as small as possible by scattering business details through the departments of instruction, it seems to the commission that it is highly important to point out the danger of scattering these business details in such a way that there is no general supervision over business matters.

The relation of a proper accounting system to an efficient and effective educational administration needs special emphasis. If the presidents and the board of administration are to administer the educational institutions intelligently and properly, they must have available at all times reliable financial statistics covering past transactions for use in planning for the future.

FINANCIAL REPORTS.

The State educational institutions of Kansas have not published any satisfactory financial reports for a number of years, and as a result it has been impossible to compare in a proper manner the income and expenditures of the Kansas educational institutions, one with another or with similar institutions of other States. It is true that financial summaries have been published for some of the institutions in the biennial reports, and that the business manager in his biennial reports has given a summary of income and expenditures classified as to funds and appropriations, but these reports are not complete, and do not give the information needed for administrative purposes and for satisfactory comparisons with other institutions.

BUSINESS ORGANIZATION AND DIRECTION AT EDUCATIONAL INSTITUTIONS.

At the three normal schools the direction of business matters can undoubtedly receive the general oversight of the presidents at each institution, if efficient business officers are provided to relieve the

presidents of the minor details of business administration. At the State university and the agricultural college, however, on account of the complicated organizations, larger plants, and large volume of business transactions, it seems desirable that careful attention should be given to the consideration of a reorganization of the business activities. There are many functions which naturally group themselves under the head of business matters, such as financial accounting, the care and maintenance of buildings and grounds, the operation of the heating, power, and lighting plants, and supervision over accounting and business matters of the entire institution. If a president is to administer an institution properly, he is entitled to have at his right hand an efficient business man who can look after these business details for him.

At the university, with a separate medical school and hospital located in Kansas City, Kans., there is an important problem in connecting up the business office in Kansas City with the university business office, if the chancellor of the university is to be held responsible for business matters at the hospital. It seems important to call attention to this matter at this time, as with a separation of approximately 40 miles from the university, it is very desirable, from a business point of view, that there should be the closest relation between the business office in the hospital at Kansas City and the business office at the university, and, as a matter of fact, the business office in Kansas City should be a branch of the business office of the university. Similar geographical separations of hospitals and medical schools from the main university have developed serious administrative problems in other universities where there has not been a definite understanding concerning supervision of business matters by the central university business office, and therefore it is well that this matter be taken in hand while the institution in Kansas City is yet small.

At the agricultural college a similar situation obtains with branch experiment stations in different parts of the State. The business matters of these branch stations should not only go through the business office at the college, but the methods at the stations should be checked by the office at Manhattan.

RECOMMENDATIONS.

After considering the foregoing analysis of the business methods of the business manager's office at Topeka, and the business offices in the several educational institutions, the commission begs leave to make the following recommendations:

1. CHANGES IN ACCOUNTING METHODS.

It is recommended that the accounting system at the institutions be modified and improved so as to bring the accounting procedure

into conformity with approved accounting methods, and in harmony with the best practice at leading American universities and colleges. This modification will require very little additional work, and the additional work required will be saved in other places by the convenience brought about by the improved methods.

The new or modified books of account suggested are the following:

1. *A General Ledger*, to contain the following classes of accounts:
   a. Assets and liabilities.
   b. Income and expenditures.
   c. Budget control accounts.
2. *Budget Ledgers.*—The present budget ledger form at the university and the agricultural college will do, but a revised classification is recommended. A salaries and wages ledger is also recommended for the classification of salaries and wages.
3. *Journal.*
4. *Cash Book.*—A new form for daily proof of cash.
5. *Classification of Receipts.*—For chronological record of cash receipts, with classification as to sources.
6. *Classification of Expenditures.*—This is a summary sheet to be used in bringing together on one sheet all the expenditures of a department, classified as to purposes of expenditures.

The introduction of the foregoing records will bring the bookkeeping system into systematic form, and will make it possible to make out financial reports without much difficulty.

2. FINANCIAL REPORTS.

The commission recommends that each institution issue annually a financial report which will give the administrators, the board, and the public at large accurate and satisfactory statements of the financial situation at each institution. These reports need not be elaborate, but it seems advisable that at least the following should be included:

1. A balance sheet, giving all assets and liabilities, with supporting schedules.
2. A condensed statement of income and expenditures.
3. A detailed statement of income classified by the principal sources of income.
4. A statement of expenditures by departments, and other divisions classified as to salaries and wages, other expenses, and equipment, and physical plant extension.

The financial reports may be expanded to suit the needs of the several institutions, but it seems that none of the foregoing can be omitted. Reports of this kind, if properly made, will give at a glance a picture of the financial transactions of each institution. It is recommended that reports of leading American colleges and uni-

versities be consulted as to style and schedules, and that the standard classification of expenditures adopted by the Association of University and College Business Officers be used as a standard for expenditure classifications.

3. THE CONCENTRATION OF BUSINESS ACTIVITIES AT INSTITUTIONS.

It seems to the commission advisable to suggest to the authorities, especially at the university and the agricultural college, to consider carefully and thoroughly the propriety of centralizing business activities in the business office by bringing together under central control the tag ends of business matters that are now scattered through several departments. This method is now followed in practically all the larger colleges and universities in America, and seems to be the only feasible way for fixing definite responsibility and unity of action in business matters, and at the same time bringing together at one point both business operations and business record keeping.

4. TRUST FUNDS.

The commission finds no adequate provisions for handling gifts to the Kansas State educational institutions, either in the form of permanent endowment or for current use. Gifts in the form of lands, buildings, or equipment can be received and used without difficulty, as such gifts will not require investment or detailed accounting extending over a period of years, but gifts of funds for endowment or for current use, however, require special treatment, as funds of this sort must be safe-guarded in every way as to investment and use, if the purposes of the donors are to be fulfilled. Trust funds must be segregated from general income, as donors could hardly be expected to make gifts to an institution which might eventually be turned into the general fund of the State, and perhaps be lost to the institution and to the specific purpose for which given, by the failure of the legislature to reappropriate such funds to the institution concerned.

Gifts to educational institutions usually come from alumni, former students, and friends of the institution, who, for one reason or another, desire to make gifts to the institution in which they are interested. These persons may not be interested in the State as a whole, but they are interested in the college or university in which they received their education or with which they have been associated. With the growth of the country in wealth, there is an increasing tendency to make gifts to educational institutions, and in recent years State universities and colleges in several States have been the recipients of munificent gifts, and several generous gifts have been made to Kansas State educational institutions. The university, the agricultural college, and the normal school at Emporia have been graduat-

ing students for 50 years, and many of the alumni of these institutions now are at the point in life when they are considering seriously the disposition of all or part of the wealth which they have accumulated during a lifetime. The Kansas institutions should be in a position not only to be able to *receive* gifts from these alumni, but should be so organized as to *attract* gifts. What is true of the university, the agricultural college, and the normal school at Emporia in regard to age will soon be true of Hays and Pittsburg. The increasing cost of higher education emphasizes the desirability for State institutions, as well as private institutions, to encourage gifts in every proper way for the support of higher education, and nothing will do more to encourage such gifts than a sound financial policy at each institution.

At present both the university and the agricultural college have several trust funds received from private donors, but there seems to be no definite or authoritative policy for handling these funds. At the university some of these funds are handled by the registrar, while others pass through the accounts of the State treasurer, but neither the business office at the university nor the office of the business manager at Topeka has these funds recorded in its books. At the agricultural college trust funds are handled as part of the bookeeping system of the business office at the college, but adequate record is not made in the books of the investment of some of these funds.

Several methods have been successfully used by other institutions for handling funds from private sources, and to some extent the method to be employed in Kansas will depend upon the policy of control of the Kansas State educational institutions. If it were feasible to have each institution incorporated as a separate unit, such incorporation would make it possible to provide the necessary machinery for handling funds of this kind. With an able financial officer at each institution, and with a system for investing these funds either through a finance committee of the board, or by private trust company, or through the State treasury, a system could be devised for handling these funds in a systematic and safe manner; but in whatever plan that is worked out, it is absolutely necessary to consider the individuality of each institution, so that the wishes of the donors may be fulfilled.

The commission has previously called attention to the need for adequate financial reports, and this need becomes especially apparent in a consideration of funds from private sources. Private donors should be assured in every way that gifts to an institution will be properly safeguarded, invested, and used, and that proper accounting will be made of such funds in published financial reports. As far as the commission has been able to find, no complete financial

[illegible]ements of all financial transactions, including gift funds, have [illegible]en published by any of the State educational institutions of Kansas during the past few years. A policy of this sort is certain to discourage private gifts, and the commission urges that special attention be given to this matter at an early date so that the State educational institutions of Kansas may receive their share of gifts for the support of higher education.

5. RUNNING INVENTORY SYSTEM.

Educational institutions have found it convenient to establish running inventory systems for equipment, under which all equipment is numbered and recorded as purchased, and indexed on card records.

Under the laws of Kansas the State accountant is required to make an inventory of the property at each institution. An inventory of this kind has been made at the several educational institutions, but unfortunately the system devised is such that it can not be used at the educational institutions without great expenditure of time. It is therefore suggested that if an inventory system is to be installed, the systems now in use at leading educational institutions be used as a pattern.

SUMMARY OF RECOMMENDATIONS.

1. That, in so far as their powers relate to the institutions of higher learning, the present State board of administration be replaced with a nonpaid board of from seven to nine persons appointed by the governor, for terms of seven to nine years each.
2. That the office of business manager, with a clear definition of his relations to the new board, be retained as at present for the purchase of supplies, equipment, and supervision of the erection of buildings.
3. That the office of secretary to the new board for the higher institutions be created for the purpose of collecting comparable data from the institutions under the direction of the board and to conduct routine affairs of the office.
4. That the State law requiring the admission to the freshman class of all graduates from accredited high schools in Kansas be repealed.
5. That liberal arts and sciences, engineering, fine arts, medicine, pharmacy, architecture, law, commerce, education, and graduate study be recognized as major lines of work at the university.
6. That agriculture, engineering, home economics, vocational education, industrial journalism, graduate study, and the biological and physical sciences be recognized as major lines of work at the agricultural college.
7. That the agricultural college shift its architectural work to rural and landscape architecture and that the university alone develop the field of urban architecture.
8. That music at the agricultural college be developed primarily for service purposes, but with the privilege of granting degrees in music. Music work leading to degrees should not, however, be expanded indefinitely.
9. That journalism be developed for general professional purposes primarily at the university, but that the agricultural college be encouraged to develop its four-year course of study leading to a degree in industrial journalism.

10. That home economics be developed at the university primarily for general home-making and teacher-training purposes.

11. That liberal arts at the agricultural college be developed for general cultural and citizenship purposes, but without emphasis as a major line of work.

12. That the requirements for certificates to teach in secondary schools, including both academic and vocational subjects, be increased to graduation from an accredited college or normal school, with adequate minimum subject matter preparation and professional training.

13. That no new normal schools in Kansas be established until the standard of teacher preparation has been raised to such a point as to constitute an increased demand for teacher training at the normal schools.

14. That all vocational, industrial engineering, and engineering courses at the normal schools for other than teacher-training purposes be abolished, except temporarily for the rehabilitation of soldiers at Pittsburg and Hays; and that in the meantime the vocational and regular students be separated rigidly into classes for each group.

15. That the normal schools be confined to granting the degree of bachelor of science in education.

16. That in preparing teachers of agriculture, home economics, physical training, manual arts, commerce, and trades and industries the normal schools attempt to give only service courses and not more than the first two years of four-year curricula in these fields. An exception should be made at the Pittsburg Normal School in favor of home economics, manual arts, and trades and industries.

17. That the teacher-training schools be given more adequate quarters and that the administration of the training schools be centralized in a director who is a member of the department of education.

18. That the normal schools place more emphasis on adequate subject-matter preparation for elementary-school teachers.

19. That the several institutions define their correspondence and extension work in accordance with the major functions of the respective institutions, and that the directors work out in cooperation a scheme for eliminating differences in practice with respect to credits and other matters.

20. That steps be taken at the earliest possible time to develop graduate study and research more extensively at the university and the agricultural college.

21. That the university and the agricultural college be relieved in so far as possible of all regulatory and police duties in the State, but that the research and analysis incident to these functions continue to be done at these institutions.

22. That the secondary school of agriculture at the State agricultural college be reorganized in such a way as that its attention may be concentrated on adult vocational education in agriculture, home economics, and mechanic arts.

23. That more suitable quarters and facilities to conduct the work of the Reserve Officers' Training Corps at the university be provided at the earliest possible time.

24. That all the higher institutions adopt devices to raise the standard of work done by students and to give encouragement to the students of unusual or marked ability.

25. That the basis of salaries at the university and the agricultural college be raised, in order that these institutions may compete successfully for the best talent whenever vacancies in the teaching staff occur.

26. That the system of dormitories for young women begun by appropriations at the last session of the legislature be continued until the young women students at each of the institutions are housed satisfactorily, and that additional appropriations be made at the next session of the legislature to continue the erection of buildings needed by the several institutions.

27. That as early as possible the legislature fix a mill tax for each of the higher institutions, in accordance with their respective needs for maintenance and buildings.

REPORT ON THE MEDICAL SCHOOL OF THE UNIVERSITY OF KANSAS.

By E. P. Lyon, Dean, The Medical School, University of Minnesota, Minneapolis, Minn.

To the Board of Administration, Topeka, Kans.

At your request I have made a study of the medical school of the University of Kansas. I spent May 22, 23, and 27 at Kansas City and May 24 at Lawrence. I visited the laboratories at both places, the existing hospital, and the new site of the medical school in Kansas City, Kans. I interviewed all available members of the faculty at Lawrence and many at Kansas City. I also saw numerous graduates of the school and other physicians in both Kansas City, Kans., and Kansas City, Mo., as well as some business men. At St. Louis I consulted Dr. N. P. Colwell, secretary of the Council on Medical Education of the American Medical Association, and Dr. C. H. Greene, of the University of Missouri.

LOCATION OF CLINICAL DEPARTMENTS.

It is understood by your inspector that after a full discussion it was decided two years ago that the practical instruction in medicine should be carried on in Kansas City, Kans. A new and much better site was purchased. Work on the first hospital building is in progress. Your inspector assumes that the question of the location of the medical school is closed.

The new site is satisfactory—a great improvement over the old. If, however, more land is available in the neighborhood, on both sides of the State line, it would be well if it could be obtained, either by the university or its friends, to be used by medical and allied institutions that might be willing to locate in the neighborhood. A medical school has much to offer such institutions; for example, a private hospital benefits by nearness to adequate pathological service. On the other hand, the medical school is benefited by any such institutions in its neighborhood.

LOCATION OF THE LABORATORY DEPARTMENTS.

The departments of anatomy, physiology, bacteriology, and biochemistry are at Lawrence. The department of pathology is at

Rosedale, and the department of physiology, which is charged with teaching pharmacology, conducts instruction in the latter subject at Rosedale, though most of its work is at Lawrence. The fundamental departments are therefore divided from each other and from the clinical departments. This is a serious handicap.

At Lawrence the department of physiology alone appears to be decently housed, and even this department, although it has a fair amount of space, can not be said to be permanently provided for in the basement rooms assigned to it. The departments of anatomy, bactericlogy, and biochemistry are much crowded, and the condition is growing intolerable as the classes increase in size. All these departments are in different buildings.

Recommendation 1: A building for the medical sciences should be provided at once.

When one takes up the question of the location of such building, two points of view and two lines of argument are presented: (*a*) In favor of retaining the present laboratory departments at Lawrence and even taking pathology in part to that place; (*b*) in favor of placing all the laboratory or preclinical departments at Kansas City, Kans., with the practical branches.

Your inspector is familiar with the arguments for and against the divided school. He has watched the development of the medical departments of various institutions, such as Rush Medical College (University of Chicago), Indiana University, University of Nebraska, University of Colorado, University of Wisconsin, University of Texas. He has attempted to review and evaluate the arguments on both sides in the light of the historical development and in the light of the present situation and the present sentiment in Kansas.

Recommendation 2: The policy of a unified medical school should be adopted now. As soon as possible the laboratory building should be erected at Kansas City. The departments of anatomy, bacteriology, biochemistry, and physiology should be moved to the latter city.

Even before a new building can be provided the question of the possible accommodation of these departments at the Rosedale campus by readjustments and the joint temporary use of laboratories might well be discussed.

REASONS FOR RECOMMENDATION 2.

Your inspector considers this recommendation so important that he will attempt to recapitulate the reasons for it:

1. *Effect on the students.*—The students need opportunities to study anatomy, physiology, bacteriology, and biochemistry throughout the four years of the medical course. They need constantly to be reminded that practical medicine is only the application of these sciences. They will have opportunities to study sick people

all their lives, but the laboratory sciences as a rule only during the medical course. It is a pedagogical mistake to cut off the students from the fundamental sciences after a contact of only one year and a half with them.

A valuable part of medical education is the contact of advanced and biginning students with each other. This is lost in the divided school.

The beginners get enthusiasm and interest from the proximity of the clinic. This is lost in the divided school.

There is a movement to begin clinical teaching earlier in the course. If this experiment should prove successful, the students in a divided school will be at a disadvantage.

2. *Effect on the faculty.*—(*a*) The laboratory men need contact with the clinical men and with the hospital in order to keep laboratory teaching and research in practical lines. The fundamental subjects should be taught primarily as sciences, but nevertheless, by contact with clinical teachers, the laboratory men can learn what to emphasize in order that their students may be properly prepared for the practical work of the junior and senior years. They can also learn of practical questions for research.

(*b*) The clinical teachers need the laboratory teachers. It is a tradition that pathology should work hand in hand with clinical medicine. This is because pathology developed in the hospital and dead house. No one would think of divorcing pathology from practice; and if the last half of the sophomore year should be taken from Rosedale to Lawrence, it would be necessry to teach pathology in both places.

But the clinical teachers need the other preclinical branches as much as they need pathology. Medicine becomes more and more biochemistry and physiology, and less and less pathological anatomy. The bacteriologist, the biochemist, and the physiologist should all have their contacts with the hospital. Even the anatomist needs hospital relations in order to get fresh material. If there was no other argument for the united school than the need which the clinical branches have for the preclinical, it would be more than ample. A purely clinical school is a purely practical school. Without the preclinical departments the medical school can not have the academic atmosphere, the university spirit, the research habit, and the altruistic idealism which attach to departments where full-time men make teaching and research their life work. Only the whole-time laboratory men can bind the part-time clinical faculty into a coordinating working body.

A divided faculty really means two faculties, neither of which can function properly. You can not divide a race horse into fore and hind halves and expect to win the Derby.

3. *Educational policy.*—Medicine consists of those parts of biology, physics, and chemistry (and practical psychology) which may be used in understanding human disease and in diagnosing, treating, and preventing human disease. These parts of biology, physics, and chemistry are known by special names, such as anatomy, physiology, biochemistry, when one is thinking of pure sciences. They are known as surgery, medicine, pediatrics, etc., when one is considering applied science. It is an educational mistake to separate the pure sciences from the applied sciences.

Suppose one should propose that botany, bacteriology, chemistry, and physics be taken away from Manhattan and that only the practical applications of these should constitute the agricultural college, you would have the educational anomaly that now exists as regards medical education in Kansas university.

All members of the faculty and doctors interviewed at Kansas City, except two, believe that the school should be united at Kansas City. There is a strong but not unanimous sentiment among the preclinical teachers at Lawrence in favor of such action. Medical educators in general do not favor the divided school. Several schools which began that way have later been united.

Your inspector believes that the duplication of equipment necessary for teaching physiology and bacteriology to university students at Lawrence (when the main departments are moved to Kansas City) will be insignificant, this work being elementary in character.

POLICY AS TO CLINICAL DEVELOPMENT.

The medical school has been located within two blocks of the Missouri-Kansas line. Only one reason can justify this location, namely, the determination to develop a metropolitan medical school, using the facilities and clinical material of "Greater Kansas City."

Recommendation 3.—The policy of a metropolitan medical school making use of the hospitals and clinics of both Kansas City, Kans., and Kansas City, Mo., should be formally adopted. Cordial relations on both sides of the State line should be fostered. The idea that medical education is an interstate and national service should be promulgated. Private donations to the school as a "Greater Kansas City" institution should be solicited. Gentlemen's agreements, if formal contracts are not possible, should be entered into with the hospital managers on the Missouri side.

Your inspector took great pains to ascertain whether such arrangements would be possible. It was the unanimous opinion of medical and business men in Kansas City, Mo., that amicable and workable relations can be brought about and that public and alumni sentiment in that city will support the university in getting the necessary agreements with the hospitals.

The best teachers should be chosen, regardless of residence. The organized medical profession of Kansas should back up this policy of metropolitan development.

POLICY AS TO SUPPORT OF UNIVERSITY HOSPITAL.

Every hospital exists primarily for the care of the sick and their restoration so far as possible to useful citizenship. This being true the support of the patients in the State university hospital should not be a charge on the educational funds of the State. The university may, however, properly pay for teachers and for teaching and research equipment in such a hospital.

Recommendation 4.—The policy of developing the hospital on room and ward charges against patients who are able to pay and on State payment for patients who are indigent should be adopted. As soon as possible the university should discontinue the use of educational funds for the support of patients. The so-called county law is founded on wrong psychology and should be abandoned. The county as a unit for the care of all types of indigent sick is as antiquated as is the county unit for that special class of sick known as insane. An effort should be made at once to secure a statute providing that sick and crippled children may be sent to the university hospital at State expense. Gradually, as in Iowa, the people will come to recognize the great value of such service and be willing to extend and support it.

Kansas should establish hospitals for crippled and deformed people, for eye and ear, for venereal diseases, and for mental diseases, not as separate institutions but as pavilions of the university hospital. A psychopathic pavilion, or hospital unit, cooperating with the courts, insane hospitals, and all the official machinery for handling mental deficiency and delinquency should be an early development. Above all, the relation of all these social advances to medical education should be kept in view.

THE OUTPATIENT DEPARTMENT.

The outpatient department should be fostered in every way. Nothing is worse than such an emphasis on hospital teaching that the student goes out trained chiefly in unusual diseases and major surgery, and dependent on the hospitals for carrying on his practice. The hospital should not overshadow the dispensary. The best professors and teachers should be kept at work in the latter department, and the students should be given ample time there.

RELATIONS WITH KANSAS CITY, KANS.

The medical school should be an institution which the chief city of Kansas should be proud of and which it should cooperate with and

support in every way. It is fortunate that Rosedale is now a part of the large municipality. The establishment of good means of communication between the main part of Kansas City, Kans., and Rosedale should be hastened.

Kansas City, Kans., should develop its facilities for the care of the poor in connection with the medical school. Its health department should be the laboratory and field outlet for public health teaching.

Recommendation 5. The proposal that the old hospital at Rosedale be used for contagious diseases and tuberculosis (perhaps also for maternity cases) for Kansas City, Kans., should be consummated. The hospital should be supported by the city, which needs facilities for the above classes of patients. The medical school should furnish the staff.

Kansas City, Kans., should not develop any hospitals apart from the medical school. It should strengthen in every way the State institution within its borders. Thereby it will accomplish its own purposes better and at less expense.

EDUCATIONAL STANDARDS.

So far as I could learn the premedical requirements are well enforced. Everybody acquainted with the facts states that the standards of scholarship in the medical school have steadily advanced during the past six years. The graduates are fairly well trained. Men who had served internships in the East, in contact with graduates of the best schools, state that they held their own in the competition. This does not mean that there is no room for improvement. It means that the medical school has made progress and should be commended and supported.

BUDGET.

The budget is small. Whether it is proportional to the total revenue of the university I can not say, but it ought to be increased.

I have no suggestions except that the payment of any considerable salaries to part-time clinicians should be discouraged in the present state of the school. Men should be sought who are willing to do the work for the advantage of medical education and their own advancement through the school relation. This does not apply to young men who may be willing to give practically full time for a few years. Such men may be paid, but they should step out as soon as their private practices begin to increase. The fundamental departments must be provided for before the clinical. Strong laboratory departments are indispensable.

ST. MARGARET'S HOSPITAL.

From accredited accounts this institution has much good clinical material not adequately used by the medical school. The distance

is a disadvantage, but a workable plan should be formulated. Perhaps something like the Minnesota student-internship might be developed for this hospital and some of the other institutions of the two Kansas Cities. The university might support residents (fellows) for the principal services in St. Margaret's Hospital.

RELATIONS WITH THE MEDICAL PROFESSION.

I believe the Kansas State Medical Society is friendly to the school and will help it. Broadly looked at, a good medical school and a good State hospital will help the profession much more than they will hurt it. I am certain that this view holds among the leaders of the profession in Kansas.

Meanwhile the university should do its best to be of service to the profession by short courses, by extension work, by public education in medical matters, and by setting good standards. Both sides should labor for cordial understanding and cooperation by frequently meeting together.

GENERAL CONSIDERATIONS.

It is a mistake to permit a medical school to develop as an institution primarily for the training of physicians. This ideal leads to the criticism that medical education is expensive, that it is for the benefit of a limited class, and that it should not be supported by the State.

The agricultural college is supported because it leads to the production of better crops and better domestic animals. The medical school should produce better human beings. Both schools apply the same sciences, namely, biology, chemistry, and physics, the one to animal, the other to human needs. The medical school has an even closer relation to the happiness and prosperity of the State than the agricultural school, for what will avail any amount of economic prosperity in the absence of health?

The medical school should not be content with the negative duty of caring for people when they are sick and of preparing physicians for the traditional career in curative medicine. It should have a positive program of public health and preventive medicine; that is, hygiene in its broadest sense. To this end the medical school should foster all forms of educational activity, both intramural and university extension which will produce doctors with ideals of public service and which will bring to the people a knowledge of the applications of science in combating disease and supporting human efficiency.

The medical school should administer all curricula based primarily on the medical sciences. These are the medical course, the dental course, the nursing course, medical social service, and the public health course.

Public health nursing is one of the first of the latter courses that should be considered. There should be a public health nurse in every county, and the medical school should train the women for these positions. They should be apostles of health and expounders of medical knowledge in the homes and schools of the people, just as the county agricultural agents are the teachers of better agriculture and animal husbandry in the fields and stables.

The medical school, though located at Kansas City, might well offer popular courses at Lawrence and even at Manhattan for future teachers, for home economics students, indeed for any and all students. Funds should be available for extension work among both the doctors and the laity of the State. "The State-wide campus" is certainly the ideal of the modern State-supported medical school, as it is of the agricultural college or the school of education.

The University of Kansas might canvass the question of dental education; and if there is need, dentistry might be developed as part of the greater medical school. It is a mistake alike of State policy and of educational policy to have dentistry independent of medicine. This does not mean that every dentist should have the complete training of a physician, but it does mean that both professions are founded on the same sciences and should be taught in the same laboratories and clinics. The development of a unified out-patient department, including medicine, dentistry, and social service, might well be considered.

The University of Kansas has a good opportunity in medical education. It need not try to [illegible] Johns Hopkins and Harvard Universities all at once. It [illegible] time. It needs boosting instead of knocking, harmony instead of jealousy, cooperation instead of petty criticism. I believe the time is ripe for a big forward movement.

APPENDIX.

STATISTICAL TABLES.

Table 1. Per cent of the population 14 to 18 years of age in high schools, 1919–20.
2. Per cent of total school enrollment in high schools.
3. High-school attendance in Kansas, 1900–1901 to 1919–20.
4. Number and places of residence of college and professional students, and number of inhabitants per student, by States (excluding independent theological schools and teacher-training institutions), 1920–21.
5. The relation between appropriations for State institutions of higher learning and population in various States.
6. Number of students registered in the various divisions of the university and agricultural college for the years 1912–13 to 1921–22.
7. Number of students taking various majors in engineering at the university and the agricultural college for the years 1912–13 to 1921–22.
8. Summary of enrollment in normal schools for the years 1917–18 to 1921–22.
9. Enrollment of resident students in normal schools for the year 1921–22.
10. Number of credit hours taken by students at the university and agricultural college for the year 1921–22.
11. Courses offered and courses given by departments, for the years 1920–21 and 1921–22.
12. Sizes of classes for the years 1920–21 and 1921–22.
13. Number of degrees granted by the university and agricultural college for the years 1911–12 to 1920–21.
14. Vocations of graduates of the university and agricultural college for the years 1912 to 1921, inclusive.
15. Numbers of members of faculties, 1913 to 1922.
16. Enrollment and graduates in privately supported colleges and universities in Kansas accredited by the State board of education for the year 1921–22.
17. Summary of enrollment and graduates in privately supported colleges and universities in Kansas accredited by the State board of education for the years 1917–18 to 1921–22.
18. Appropriations by the State legislature to the State educational institutions for the years 1914 to 1923.
19. Condensed and consolidated statement of income and expenditures of the university, agricultural college, and normal schools, for the year 1920–21.
20. Expenditures for agricultural and home economics extension for the years 1911–12 to 1920–21.
21. Comparative statement concerning correspondence and extension classes.

TABLE 1.—*Per cent of the population 14 to 18 years of age enrolled in high schools, 1919–20.*

	Per cent.
United States	28.4
1. California	86.6
2. Nevada	53.3
3. Washington	50.6
4. Oregon	49.9
5. KANSAS	43.2
6. Montana	41.2
7. Idaho	40.8
8. Utah	38.9
9. Massachusetts	38.4
10. Indiana	38.1
11. Vermont	37.9
12. Colorado	37.8
13. Wyoming	37.5
14. Maine	36.8
15. District of Columbia	36.7
16. Ohio	36.1
17. Michigan	35.9
18. Connecticut	35.5
19. Minnesota	34.4
20. New York	33.5
21. Nebraska	32.1
22. Wisconsin	30.5
23. South Dakota	30.1
24. Iowa	29.7
25. Illinois	29.2
26. Missouri	28.5
27. New Hampshire	28.0
28. New Jersey	27.4
29. Texas	26.9
30. Arizona	26.3
31. Oklahoma	24.2
32. Pennsylvania	22.5
33. North Dakota	22.2
34. Rhode Island	22.2
35. Delaware	20.3
36. South Carolina	18.4
37. West Virginia	18.3
38. Arkansas	17.7
39. Georgia	17.5
40. Tennessee	17.0
41. Alabama	16.9
42. Florida	16.9
43. Virginia	16.1
44. Maryland	15.7
45. Louisiana	15.2
46. New Mexico	13.6
47. North Carolina	13.5
48. Mississippi	13.4
49. Kentucky	11.9

TABLE 2.—*Per cent of total school enrollment in high schools.*

	Per cent.
United States	10.2
1. California	23.4
2. Oregon	16.7
3. Nevada	15.1
4. Massachusetts	15.0
5. Vermont	15.0
6. Washington	14.9
7. KANSAS	14.1
8. Maine	14.0
9. Indiana	13.9
10. District of Columbia	13.4
11. Ohio	13.1
12. New York	12.8
13. Wisconsin	12.8
14. Michigan	12.4
15. New Hampshire	12.4
16. Minnesota	12.2
17. Utah	12.0
18. Connecticut	11.8
19. Idaho	11.5
20. Montana	11.5
21. Illinois	11.3
22. Colorado	11.1
23. Missouri	10.7
24. Texas	10.4
25. Wyoming	10.4
26. Iowa	10.1
27. Nebraska	10.0
28. South Dakota	10.0
29. Rhode Island	9.8
30. New Jersey	9.5
31. Pennsylvania	8.6
32. Delaware	7.9
33. Arizona	7.7
34. Oklahoma	7.2
35. North Dakota	6.9
36. Louisiana	6.8
37. Maryland	6.8
38. Georgia	6.5
39. Alabama	6.2
40. West Virginia	6.2
41. Virginia	6.1
42. South Carolina	6.0
43. Arkansas	5.8
44. Florida	5.6
45. Tennessee	5.5
46. Mississippi	5.4
47. New Mexico	4.8
48. North Carolina	4.5
49. Kentucky	4.4

TABLE 3.—*High-school attendance in Kansas, 1900–1901 to 1919–20.*

	1900–1901	1901–2	1902–3	1903–4	1904–5	1905–6	1906–7	1907–8	1908–9
Public	15,638	15,883	17,669	19,196	20,025	20,249	21,124	22,089	24,555
Private	841	690	881	1,256	832	746	519	404	392
Total	16,479	16,573	18,550	20,452	20,857	20,995	21,643	22,493	24,977

	1909–10	1910–11	1911–12	1912–13	1913–14	1914–15	1915–16	1917–18	1919–20
Public	26,278	27,594	31,296	34,600	37,653	38,318	41,011	54,823	57,528
Private	543	992	1,126	1,514	1,779	1,663	1,569	1,954	2,582
Total	26,821	28,586	32,422	36,114	39,432	39,981	42,580	56,777	60,110

The number of high-school graduates during the years 1918–19 and 1919–20 was, respectively, 8,716 and 7,833.

TABLE 4.—*Number and places of residence of college and professional students, and number of inhabitants per student, by States (excluding independent theological schools and teacher training institutions), 1920–21.*

Rank.	States.	Students who reside in the State.	People in the State to each student who resides in the State.	Students attending institutions within the State.	Rank.	States.	Students who reside in the State.	People in the State to each student who resides in the State.	Students attending institutions within the State.
1	Dis. of Columbia	4,600	96	9,718	27	Pennsylvania	34,491	253	36,262
2	Oregon	7,020	112	8,015	28	North Dakota	2,523	256	1,792
3	Iowa	13,867	128	17,068	29	Maine	2,966	259	2,391
4	Utah	3,283	137	3,276	30	Oklahoma	7,709	264	6,356
5	KANSAS	11,786	151	10,494	31	South Carolina	6,250	270	5,517
6	Nebraska	8,607	151	8,261	32	Rhode Island	2,173	279	2,184
7	Washington	8,780	155	8,588	33	Arizona	1,174	284	1,171
8	Nevada	465	167	559	34	New Jersey	10,744	294	4,199
9	California	20,481	168	22,460	35	Virginia	7,296	317	8,626
10	Colorado	5,302	178	6,226	36	Delaware	699	320	402
11	Idaho	2,383	182	1,304	37	West Virginia	4,490	326	3,249
12	Minnesota	12,983	184	12,561	38	North Carolina	7,720	332	6,902
13	Montana	2,972	185	2,191	39	Mississippi	5,078	346	3,482
14	Indiana	15,548	189	14,911	40	Texas	12,800	365	10,575
15	South Dakota	3,379	189	2,322	41	Florida	2,588	374	1,780
16	Ohio	29,617	195	28,222	42	Maryland	3,409	427	4,319
17	Vermont	1,724	205	1,671	43	Louisiana	4,156	433	4,333
18	New York	49,282	211	55,130	44	Alabama	5,299	443	4,354
19	Wyoming	906	215	493	45	Georgia	6,078	477	6,614
20	Illinois	28,887	225	34,935	46	Kentucky	4,857	498	3,730
21	New Hampshire	1,865	238	2,848	47	New Mexico	709	509	504
22	Massachusetts	16,072	240	24,136	48	Arkansas	3,094	566	2,020
23	Missouri	13,996	244	14,101	49	Tennessee	3,874	604	4,359
24	Connecticut	5,568	248	4,738					
25	Michigan	14,757	249	17,208		Total	439,910	.....	448,267
26	Wisconsin	10,603	249	11,710					

TABLE 5.—*Relation between appropriations for State institutions of higher learning[1] and population in various States, 1919–20.*

Rank.	State or Territory.	Total appropriated to State higher educational institutions.	Population at census of 1920.	Per capita appropriation.	Rank.	State or Territory.	Total appropriated to State higher educational institutions.	Population at census of 1920.	Per capita appropriation.
1	Nevada	$241,708	77,407	$3.12	26	Indiana	$1,833,566	2,930,390	$0.62
2	Utah	1,239,445	449,396	2.75	27	Illinois	3,737,976	6,485,280	.57
3	Oregon	1,873,914	783,389	2.39	28	South Carolina	922,565	1,683,724	.54
4	Arizona	874,423	334,162	2.31	29	Mississippi	867,260	1,790,618	.48
5	Washington	2,461,701	1,356,621	1.81	29	Maine	358,907	768,014	.48
6	Montana	876,501	548,889	1.59	30	Virginia	1,094,225	2,309,187	.47
7	Idaho	673,697	431,866	1.58	31	Massachusetts	1,665,630	3,852,356	.45
8	North Dakota	1,016,443	646,872	1.57	32	Ohio	2,580,409	5,759,394	.44
9	Nebraska	2,022,100	1,296,372	1.55	33	Delaware	94,045	223,003	.42
10	Colorado	1,436,958	939,629	1.52	34	North Carolina	978,545	2,559,123	.38
11	Minnesota	3,533,436	2,387,125	1.48	35	Florida	350,710	968,470	.36
12	South Dakota	1,040,323	636,547	1.47	36	Rhode Island	211,924	604,397	.35
13	KANSAS	2,499,103	1,769,257	1.41	37	Vermont	128,419	352,428	.33
14	Iowa	3,247,233	2,404,021	1.35	38	Tennessee	699,381	2,337,885	.29
15	Wisconsin	3,186,143	2,632,067	1.21	39	Missouri	913,297	3,404,055	.27
16	Oklahoma	2,287,412	2,028,283	1.14	40	Georgia	765,418	2,895,832	.26
17	Michigan	4,107,723	3,668,412	1.12	41	New Jersey	735,653	3,155,900	.23
18	California	3,748,750	3,426,861	1.09	42	Maryland	320,026	1,449,661	.22
19	Wyoming	203,858	194,202	1.05	42	Alabama	532,330	2,348,174	.22
20	New Mexico	379,629	360,350	1.04	43	New York	3,074,625	10,385,227	.21
21	Texas	3,341,546	4,663,228	.72	43	Kentucky	712,722	2,416,630	.21
22	West Virginia	1,042,387	1,463,701	.71	44	Arkansas	334,087	1,752,204	.18
23	Hawaii	173,947	255,912	.68	45	Louisiana	308,042	1,798,509	.17
24	Connecticut	928,176	1,380,631	.67	45	Pennsylvania	1,529,257	8,720,017	.17
25	New Hampshire	274,173	443,083	.63	46	Porto Rico	146,921	1,297,772	.11

[1] Including normal schools.

TABLE 6.—*Number of students registered in various divisions for the years 1912–13 to 1921–22.*

A. UNIVERSITY OF KANSAS.

Divisions.	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Graduate	119	127	143	151	137	87	110	120	118	158
Arts and science	1,287	1,466	1,656	1,713	1,927	1,605	2,012	2,447	2,617	2,648
Education	262	167	236	322	333	316	262	337	355	391
Engineering	393	399	443	423	496	399	1,070	742	738	714
Fine arts	161	163	197	184	252	225	243	396	406	437
Law	215	185	177	171	180	112	87	202	250	265
Medicine	89	129	135	136	145	170	159	161	155	176
Pharmacy	78	65	70	60	59	42	36	66	83	99
Summer school	468	510	562	569	817	748	762	710	924	1,309
Total, excluding duplicates	2,516	2,637	2,812	2,959	3,437	2,840	3,916	4,011	4,226	4,667

B. KANSAS STATE AGRICULTURAL COLLEGE.

Graduate	55	64	48	76	68	36	34	44	42	125
General science	153	161	182	264	347	285	402	475	580	700
Agriculture	707	729	797	826	821	489	546	632	652	531
Engineering	316	287	405	511	532	394	895	916	923	911
Home economics	749	745	777	759	751	610	453	569	535	545
Veterinary medicine	49	60	48	87	91	67	70	88	73	66
Special	129	112								
School of agriculture	654	658	560	484	422	231	216	234	280	290
Federal Board for Vocational Education [1]								180		
Summer school	282	370	472	536	586	481	519	415	604	820
Total, excluding duplicates	2,928	3,027	3,089	3,314	3,339	2,406	2,991	3,376	3,395	3,547

[1] Federal Board for Vocational Education students not classified as to divisions in 1920.

TABLE 7.—*Number of students taking various majors in engineering.*

A. UNIVERSITY OF KANSAS.

Divisions.	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Architectural engineering	9	23	23	28	38	35	43	60	59	62
Chemical engineering	48	45	54	58	74	72	94	95	82	85
Civil engineering	116	99	118	102	95	75	243	173	158	179
Electrical engineering	98	106	135	136	162	126	285	214	189	171
Engineering and administrative science								8	35	41
Mechanical engineering	68	77	70	67	81	67	262	119	123	100
Mining engineering	29	21	32	31	32	20	44	65	79	72
Specials	24	28	11	1	14	4	99	8	13	4
Total for school	392	399	443	423	496	399	1,070	742	738	714

B. KANSAS STATE AGRICULTURAL COLLEGE.

Agricultural engineering			8	11	13	7	19	24	27	40
Architecture	41	27	30	28	16	19	23	41	52	61
Civil engineering	69	56	46	54	32	19	92	112	153	167
Electrical engineering	124	126	128	128	64	51	188	226	254	303
Mechanical engineering	82	78	71	72	50	42	164	115	114	127
Flour-mill engineering						6	9	10	12	17
Total	316	287	283	293	175	134	495	528	612	715
Engineering, unclassified [2]			122	218	357	260	400	388	311	196
Total for school	316	287	405	511	532	394	895	916	923	911

[1] Does not include freshmen and sophomores.

[2] Including specials and short course.

TABLE 8.—*Summary of enrollment in normal schools, 1917–18 to 1921–22.*

Terms.	College grade.[1]				Other grades.				Grand total.
	Emporia.	Hays.[2]	Pittsburg.	Total college grade.	Emporia.	Hays.[2]	Pittsburg.	Total other grades.	
1917–18.									
First semester	661	192	369	1,222	453	100	484	1,037	2,259
Second semester	618	168	445	1,231	491	84	449	1,024	2,255
Net [2]	729	.....	513	.....	504	.....	575	.....	.....
Spring term	118	28	72	218	17	5	9	31	249
Summer session	1,593	369	1,001	2,963	478	32	346	856	3,819
August term	.....	.....	.....	.....	.....	.....	.....	.....	.....
1918–19.									
First semester	519	83	431	1,033	408	235	720	1,363	2,396
Second semester	429	133	320	882	447	223	400	1,070	1,952
Net [2]	598	.....	569	.....	452	.....	810	.....	.....
Spring term	54	17	73	144	13	5	14	32	176
Summer session	1,823	336	1,095	3,254	412	53	342	807	4,061
August term	.....	.....	.....	.....	.....	.....	.....	.....	.....
1919–20.									
First semester	586	203	343	1,132	472	118	539	1,129	2,261
Second semester	561	156	419	1,136	506	107	509	1,122	2,258
Net [2]	650	.....	519	.....	547	.....	669	.....	.....
Spring term	94	41	127	262	30	20	22	72	334
Summer session	1,865	393	1,189	3,447	556	79	333	968	4,415
August term	.....	.....	97	97	.....	.....	4	4	101
1920–21.									
First semester	587	181	316	1,084	528	61	593	1,182	2,266
Second semester	571	183	395	1,149	517	62	661	1,240	2,389
Net [2]	668	.....	454	.....	596	.....	789	.....	.....
Spring term	90	46	108	244	22	6	18	46	290
Summer session	1,878	535	1,365	3,778	548	91	452	1,091	4,869
August term	92	.....	222	314	6	.....	7	13	327
1921–22.									
First semester	791	228	499	1,518	511	79	832	1,422	2,940
Second semester	780	207	615	1,602	497	71	785	1,353	2,955
Net [2]	898	.....	722	.....	570	.....	998	.....	.....
Spring term	152	81	137	370	15	3	31	49	419
Summer session	2,119	713	1,659	4,491	456	96	748	1,300	5,791
August term	206	.....	382	588	9	.....	200	209	797

[1] Includes only students classified regularly; special students are included with other grades.
[2] The net enrollment for the first and second semesters not available for the Hays Normal.

TABLE 9.—*Enrollment of resident students in normal schools, 1921–22.*

A. KANSAS STATE NORMAL SCHOOL.

Grade or class.	First semester, 1921–22.	Second semester, 1921–22.	Net.	Spring term, 1922.[1]	Summer session, 1921.	August term, 1921.
Graduate	6	5	8	1	49	3
Senior	65	69	72	1	119	25
Junior	94	99	103	.....	193	24
Sophomore	221	256	241	10	287	36
Freshman	405	351	474	140	1,471	118
Total	791	780	898	152	2,119	206
Senior (high school)	30	32	33	2	51	.....
Junior (high school)	30	26	33	4	60	.....
Sophomore (high school)	51	32	56	2	77	.....
Music	63	60	103	3	71	.....
Unclassified	12	18	20	4	43	9
Junior high school	95	89	95	.....	43	.....
Training school	230	240	230	.....	111	.....
Grand total	1,302	1,277	1,468	167	2,575	215

B. STATE MANUAL TRAINING NORMAL SCHOOL.

Graduates	13	11	17	1	33	4
Seniors	35	33	40	4	101	46
Juniors	47	58	64	2	174	48
Sophomores	134	163	188	19	364	112
Freshmen	270	350	413	111	987	172
Total	499	615	722	137	1,659	382
Special	25	32	52	10	51	15
Federal trainees	322	336	379	.....	205	185
Music only	97	81	129	21	71	.....
Seniors (high school)	41	33	44	.....	80	.....
Juniors (high school)	33	38	45	.....	87	.....
Sophomores (high school)	38	36	46	.....	57	.....
Special	40	28	57	.....	7	.....
Junior high school	99	87	102	.....	86	.....
Training school	137	114	144	.....	104	.....
Grand total	1,331	1,400	1,720	168	2,407	582

C. FORT HAYS NORMAL SCHOOL.[2]

Graduates	0	1	([3])	0	12	.....
Seniors	23	34	([3])	1	43	.....
Juniors	37	34	([3])	2	56	.....
Sophomores	74	52	([3])	13	72	.....
Freshmen	94	86	([3])	65	530	.....
Total	228	207	([3])	81	713	.....
Special	2	6	([3])	0	30	.....
Academy	62	59	([3])	3	56	.....
Telegraphy	15	6	([3])	0	10	.....
Grand total	307	278	.....	84	809	.....

[1] Spring term includes students who enroll for only the second half of the second semester. These students are not included in second semester enrollment.

[2] The Hays Normal does not have a training school. The teacher training work is given in connection with the Hays city schools.

[3] Net enrollment not available.

TABLE 10.—*Number of credit hours taken by students for the academic year 1921–22.*

Number of hours.	University of Kansas, students.		Kansas State Agricultural College,[1] students.	
	First semester.	Second semester.	First semester.	Second semester.
11 and less	98	77	44	42
12	99	87	51	63
13	180	129	70	84
14	285	194	93	123
15	1,268	1,101	155	176
16	628	712	275	292
17	496	491	757	516
18	253	269	399	392
19	64	53	174	197
20	16	15	73	85
21	3	4	43	58
22 and over	47	65	12	27

[1] Does not include graduate students, special students, or students below collegiate grade.

TABLE 11.—*Courses offered and courses given, by departments.*

Institutions.	1920–21		1921–22	
	Number of courses.		Number of courses.	
	Offered.	Given.	Offered.	Given.
University of Kansas:				
College of liberal arts	719	472	735	479
School of education	48	44	51	38
School of engineering	148	125	151	126
School of fine arts	83	77	125	85
School of law	39	42	43	31
School of medicine	93	89	87	93
School of pharmacy	27	14	28	11
Total	1,157	863	1,220	863
Percentage given	.....	74.6	.....	70.7
Kansas State Agricultural College:				
Division of general science	377	264	407	287
Division of agriculture	154	108	164	129
Division of engineering	183	148	186	161
Division of home economics	56	48	62	58
Division of veterinary medicine	43	40	41	39
Total	813	608	860	674
Percentage given	.....	74.8	.....	78.1
Kansas State Normal School	377	256	392	260
Percentage given	.....	67.9	.....	66.3
State Manual Training Normal School	510	382	513	415
Percentage given	.....	74.9	.....	80.9
Fort Hays Kansas Normal School	319	221	371	232
Percentage given	.....	69.3	.....	62.5

TABLE 12.—*Size of classes, 1920–21 and 1921–22.*

A.—UNIVERSITY OF KANSAS.

Students in each class.	1920–21		1921–22	
	First semester.	Second semester.	First semester.	Second semester.
1- 5	124	105	93	127
6-10	87	119	95	112
11-20	148	225	236	275
21-30	218	210	216	179
31-40	106	82	90	89
41-50	32	30	38	42
51-60	24	21	15	19
61-70	14	10	12	14
Over 70	[illegible]	30	24	24

B.—KANSAS STATE AGRICULTURAL COLLEGE.

Students in each class.	1920–21		1921–22	
	First semester.	Second semester.	First semester.	Second semester.
1- 5	101	114	128	143
6-10	118	153	148	167
11-20	279	318	311	317
21-30	119	197	219	240
31-40	120	112	110	103
41-50	61	38	35	34
51-60	20	14	27	11
61-70	10	7	12	1
Over 70	36	25	32	28

C.—KANSAS STATE NORMAL SCHOOL.

1- 5	23	15	12	17
6-10	50	38	33	44
11-20	52	55	48	71
21-30	34	32	42	39
31-40	20	9	16	20
41-50	3	9	7	11
51-60	3	1	4	.....
61-70	3	.....	2	1
Over 70	6	5	2	6

D.—STATE MANUAL TRAINING NORMAL SCHOOL.

1- 5	55	49	42	26
6-10	46	58	69	84
11-20	70	94	92	128
21-30	25	26	52	46
31-40	13	16	10	24
41-50	9	3	12	11
51-60	.....	1	6	4
61-70	.....	2	2	2
Over 70	1	.....	2	2

E.—FORT HAYS NORMAL SCHOOL.

1- 5	29	35	25	24
6-10	25	33	24	32
11-20	24	25	21	36
21-30	10	11	13	10
31-40	1	2	1	1
41-50	1	1	3	0
51-60	0	0	1	0
61-70	0	0	2	0
Over 70	0	1	0	1

TABLE 13.—*Number of degrees granted.*

A.—UNIVERSITY OF KANSAS.

Year.	Bachelors' degrees.				Graduate degrees.			
	Men.	Women.	Both.	Per cent total number.	Men.	Women.	Both.	Per cent total number.
1912	219	126	345	88.0	30	17	47	12.0
1913	205	129	334	85.8	37	18	55	14.2
1914	237	126	363	83.2	36	37	73	16.8
1915	210	130	340	83.1	40	29	69	16.9
1916	191	125	316	80.8	44	31	75	19.2
1917	222	150	372	85.1	37	28	65	14.9
1918	143	135	278	89.4	15	18	33	10.6
1919	127	163	290	91.7	15	11	26	8.3
1920	202	164	366	88.6	22	25	47	11.4
1921	275	184	459	89.8	34	18	52	10.2
Total	2,031	1,432	3,463	86.5	310	232	542	13.4

B.—KANSAS STATE AGRICULTURAL COLLEGE.

1912	134	90	224	97.4	4	2	6	2.6
1913	129	96	225	98.3	4	.....	4	1.7
1914	155	126	281	97.2	5	3	8	2.8
1915	124	100	224	97.4	5	1	6	2.6
1916	190	151	341	95.0	18	.....	18	5.0
1917	97	100	197	93.8	13	.....	13	6.2
1918	115	101	216	92.7	15	2	17	7.3
1919	71	96	167	96.0	6	1	7	4.0
1920	152	108	260	97.0	7	1	8	3.0
1921	152	96	248	95.0	9	4	13	5.0
Total	1,319	1,064	2,383	96.0	86	14	100	4.0

TABLE 14.—*Vocations of graduates, 1912–1921, inclusive.*

A.—UNIVERSITY OF KANSAS.

Vocations.	Graduates in—						
	Arts and sciences.	Education.	Engineering.	Fine arts.	Law.	Medicine.	Pharmacy.
Agriculture:							
Farming	10				4		2
Government work	1				1		
Teaching	1						
Other work							
Total	12				5		2
Home economics:							
Teaching	1						
Government work	1						
Total	2						
Home making	85			5			1
Engineering			179				
Professional work:							
Teaching	459	6	21	28	3	3	2
Law	29				128		
Religious and social	29		1	1	2	2	1
Medicine	61					64	1
Pharmacy	1		1				33
Veterinary practice							
Total	579	6	23	29	133	69	36
Business:							
General	28		9	1	11		
Banking	37		2	1	6		
Managerial	41	1	20	1	7		
Insurance	13				2		
Total	119	1	31	3	26		
Federal Government:							
Army and Navy	17		1		2	2	
Other work	15		3	1	1		1
Total	32		4	1	3	2	1
Other work:							
Chemistry	26		12				3
Clerical, accountancy, etc.	18				3		
Geology	9		4				
Secretarial, stenography	12			1	1		
Political	7		1				
Other work	171	1	14	8	26	1	2
Total	243	1	31	9	30	1	5
Vocations not specified	1,726	38	184	89	203	135	69
Deceased	41		14	2	5	4	3
Grand total	2,839	46	466	138	405	211	117

TABLE 14.—*Vocations of graduates, 1912–1921, inclusive*—Continued.

B.—KANSAS STATE AGRICULTURAL COLLEGE.

Vocations.	Graduates in—					
	Agriculture.	Engineering.	General science.	Home economics.	Veterinary medicine.	Total.
Agriculture:						
Farming	188	9	18	.....	6	221
Government work	93	2	27	.....	15	137
Teaching	132	[redacted]	14	.....	3	152
Other work	53		5	.....	4	66
Total	466		64	.....	28	576
Home economics:						
Teaching	.....	.....	6	199	.....	205
Government work	.....	.....	2	20	.....	22
Total	.....	.....	8	219	.....	227
Home making	.....	.....	62	398	.....	460
Engineering	.....	217	5	.....	.....	222
Professional work:						
Teaching	22	18	98	79	15	232
Law	.....	.....	.....	.....	.....	.....
Religious and social	2	2	2	5	.....	11
Medicine	.....	.....	1	.....	.....	1
Pharmacy	.....	.....	.....	.....	.....	.....
Veterinary practice	.....	.....	.....	.....	71	71
Total	24	20	101	84	86	315
Business:						
General	34	17	31	3	4	89
Banking	4	1	4	2	.....	11
Managerial	8	9	14	28	6	65
Insurance	2	1	.....	.....	.....	3
Total	48	28	49	33	10	168
Federal Government:						
Army and Navy	11	9	4	.....	1	25
Other work	.....	1	1	.....	.....	2
Total	11	10	5	.....	1	27
Other work:						
Chemistry	.....	1	9	.....	.....	10
Clerical, accountancy, etc	4	1	5	3	.....	13
Geology	.....	.....	.....	.....	.....	.....
Secretarial, stenography, etc	.....	1	6	9	.....	16
Political	.....	.....	2	.....	.....	2
Other work	4	9	7	53	5	78
Total	8	12	29	65	5	119
Vocations not specified	98	29	45	103	6	281
Deceased	14	7	9	14	2	46
Grand total	669	341	377	916	138	2,441

TABLE 15.—*Number of members of faculty, 1913–1922.*

A.—UNIVERSITY OF KANSAS.

Titles.	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Deans	9	10	10	10	10	9	9	8	9	11
Professors	41	37	44	54	62	55	55	70	74	86
Associate professors	25	35	39	35	33	35	33	41	35	37
Assistant professors	57	58	47	49	59	57	50	54	54	66
Instructors	3[illegible]	47	44	60	63	55	62	59	61	61
Assistants	9	10	14	9	16	6	11	24	29	42
Total	179	197	198	217	243	217	220	256	262	303

B.—KANSAS STATE AGRICULTURAL COLLEGE.

Deans	4	4	4	4	4	4	5	6	6	6
Professors	29	28	34	32	32	36	40	46	53	59
Associate professors	1	2	8	12	18	15	22	28	35	40
Assistant professors	20	22	24	34	34	45	35	38	38	57
Instructors	45	48	48	55	53	56	44	64	74	70
Assistants	54	58	72	52	42	30	24	22	23	11
Total	153	162	190	189	183	186	170	204	229	243

C.—KANSAS STATE NORMAL SCHOOL.

Deans	1	1	1	1	1	1	1	2	2	2
Professors	22	26	25	25	27	25	27	25	26	.....
Associate professors	2	3	3	3	4	4	5	7	5	.....
Instructors	35	41	48	52	50	31	42	43	51	.....
Total	60	71	77	81	82	61	75	77	84	.....

D.—STATE MANUAL TRAINING NORMAL SCHOOL.

Deans	.....	.....	.....	1	1	1	1	2	2	2
Professors	16	16	17	16	15	17	19	16	13	12
Associate professors	.....	.....	.....	.....	.....	.....	1	2	1	15
Assistant professors	11	12	16	25	28	30	23	29	28	32
Instructors	6	4	2	3	2	2	4	.....	4	4
Assistants	.....	.....	.....	.....	.....	.....	.....	2	2	2
Directors	.....	.....	.....	.....	.....	.....	.....	2	6	6
Assistant directors	.....	.....	.....	.....	.....	.....	.....	.....	2	2
Total	33	32	35	45	46	50	48	53	58	75

E.—FORT HAYS NORMAL SCHOOL.

Deans	.....	.....	.....	.....	.....	1	1	2	2	.....
Professors	.....	20	23	24	24	24	25	25	23	.....
Associate professors	.....	.....	1	1	1	1	3	3	2	.....
Assistant professors	.....	1	4	5	8	8	5	5	8	.....
Instructors	.....	.....	.....	.....	.....	1	2	1	.....	.....
Total	.....	21	28	30	33	35	36	36	35	.....

TABLE 16.—*Enrollment and graduates in privately controlled colleges and universities, 1921–22.*

Institutions.	Freshmen.	Sophomores.	Juniors.	Seniors.	Total enrollment.	Graduates, 1922.
Baker University	150	117	81	54	402	66
Bethany College[1]	57	27	22	11	117	11
Bethel College	43	26	10	7	86	10
College of Emporia	139	97	52	38	321	39
Fairmount College	162	90	51	54	357	51
Friends University	108	43	36	20	207	20
Kansas City University	87	31	13	12	143	
Kansas Wesleyan University	151	81	29	29	290	29
McPherson College	95	60	48	54	257	54
Ottawa University	133	61	31	37	262	35
Southwestern College	281	137	103	67	588	67
Sterling College	64	41	23	13	141	13
Washburn College[2]	264	198	49	65	574	58
Total	1,734	1,007	548	456	3,745	453

[1] Includes only students in the college of arts and science. Students of college grade in music, art, and other departments not reported.
[2] Does not include special and irregular students.

TABLE 17.—*Enrollment and graduates in privately controlled colleges and universities in Kansas, 1917–18 to 1921–22.*

Institutions.	1917–18		1918–19		1919–20		1920–21		1921–22		Total graduated, 1917–1922.
	Total in college grade.	Graduated.	Total in college grade.	Graduated.	Total in college grade.	Graduated.	Total in college grade.	Graduated.	Total in college grade.	Graduated.	
Baker University	277	48	305	32	417	69	415	65	402	66	280
Bethany College[1]	74	12	97	10	91	20	87	12	117	11	65
Bethel College	54	5	50	8	89	11	74	9	86	10	43
College of Emporia	237	27	200	42	244	19	236	42	321	39	169
Fairmount College	275	30	420	32	289	51	311	43	357	51	207
Friends University	121	18	86	12	126	13	149	15	207	20	78
Kansas City University					63		78		143		
Kansas Wesleyan University	193	27	266	12	135	23	222	31	290	29	122
McPherson College	125	19	149	21	237	32	239	29	257	54	155
Ottawa University	175	28	182	19	253	36	230	42	262	35	160
Southwestern College	226	29	304	39	429	47	525	59	588	67	241
Sterling College	85	21	74	8	108	12	115	17	141	13	71
Washburn College[2]	377	39	349	57	477	55	503	61	574	58	270
Total	2,169	303	2,482	292	2,958	388	3,184	425	3,745	453	1,861

[1] Includes only students in the college of arts and science. Students of college grade in music, art, and other departments not reported.
[2] Does not include special and irregular students.

TABLE 18.—*Appropriations to educational institutions by the legislature for the fiscal years 1914 to 1923, inclusive.*[1]

	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
University of Kansas, Lawrence	$575,500	$560,500	$625,000	$635,176	$762,000	$826,102	$911,344	$1,210,500	$1,559,500	$1,514,500
Kansas State Agricultural College, Manhattan	476,500	484,000	543,566	569,046	640,000	680,623	922,574	954,203	1,352,986	1,242,303
Fort Hays Station	25,000	25,000	22,500	22,500	10,000	10,000	26,000	17,500	25,500	20,000
Dodge City Station	2,500	2,500	2,000	2,000						
Garden City Station	5,000	5,000	6,000	5,000	5,000	5,000	8,300	5,000	7,000	7,000
Colby Station	4,000	2,000	4,000	3,000	2,500	2,500	2,500	2,500	2,500	2,500
Lakin Station	2,000	2,000								
Tribune Station	2,500	2,500	2,500	2,500	2,000	2,000	2,000	2,000	2,000	2,000
Kansas State Normal School, Emporia	203,000	178,000	187,500	304,750	169,500	184,500	286,500	278,000	296,000	286,500
Fort Hays Normal School	52,500	53,000	108,000	146,093	72,310	72,310	116,100	100,600	156,000	134,500
State Manual Training Normal School, Pittsburg	137,000	277,839	99,500	105,562	224,545	227,545	261,000	174,009	307,500	284,800
Dormitory buildings for above institutions									250,000	250,000
Total	1,485,500	1,592,339	1,600,566	1,795,627	1,887,855	2,010,580	2,536,318	2,744,303	3,958,986	3,744,103

[1] Prepared by the State auditor of Kansas.

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TABLE 19.—*Condensed and consolidated statement of income and expenditures of the higher educational institutions for the fiscal year ended June 30, 1921.*

Income and expenditures.	University of Kansas.	Kansas State Agricultural College.	Kansas State Normal School.	State Manual Training Normal School.	Fort Hays Normal School.
Income:					
From students	$201,664.85	$126,876.83	$68,357.29	$67,922.93	$33,424.02
From State	1,210,500.00	982,203.20	278,000.00	174,000.00	100,939.36
From Federal Government	.....	201,591.85	.....	.....	.....
From endowment	9,220.82	23,360.32	12,463.05	.....	.....
From other sources	119,328.86	400,137.24	90,769.43	6,350.00	35,073.81
From contingent	.....	.....	.....	4,000.00	.....
Total income	1,540,714.53	1,734,169.44	449,589.77	252,272.93	169,437.19
Balance July 1, 1920	167,401.25	213,804.46	38,398.35	16,559.11	570.72
Total	1,708,118.78	1,947,973.90	487,988.12	268,832.04	170,007.91
Expenditures:					
Administration and general	73,169.06	60,769.97	31,518.29	38,931.96	20,363.23
Departments of instruction and research	674,090.84	1,007,406.84	191,601.91	173,577.75	93,046.69
Summer session, library, etc	109,724.01	58,173.12	34,580.00	7,036.71	5,146.72
Bell Hospital	79,490.01	.....	.....	.....	.....
Branch experiment stations	.....	99,775.15	.....	.....	.....
Extension	34,536.14	245,623.39	17,829.19	8,816.47	11,133.02
State work (separate budget)	52,083.43	.....	.....	.....	.....
Operation and maintenance of physical plant	198,930.11	228,258.10	65,231.88	36,392.31	31,548.10
Buildings and additions to buildings	22,956.27	93,686.10	42,196.80	.....	.....
Business activities (cafeterias, etc.)	.....	97,853.10	62,840.02	.....	5,467.21
Student activity	.....	.....	6,926.48	.....	.....
Total	1,244,979.87	1,891,545.77	.....	.....	.....
Refunds and adjustments	2,965.26	2,183.67	.....	.....	2,891.28
Total	1,242,014.61	1,889,362.10	452,724.57	264,755.20	169,596.25
Balance June 30, 1921	466,104.17	58,611.80	35,263.55	4,076.84	411.66
Total	1,708,118.78	1,947,973.90	487,988.12	268,832.04	170,007.91

TABLE 20.—*Expenditures for agricultural and home economics extension.*

KANSAS STATE AGRICULTURAL COLLEGE.

Years.	From Federal funds.			From State funds.		
	Salary.	Expense.	Total.	Salary.	Expense.	Total.
1911–12	.....	.....	.....	.....	.....	$34,610.91
1912–13	.....	.....	.....	.....	.....	40,000.00
1913–14	.....	.....	.....	.....	.....	44,634.80
1914–15	$9,864.01	$135.99	$10,000.00	$40,769.03	$12,712.31	53,481.34
1915–16	22,265.12	2,290.33	24,555.45	42,202.96	18,422.07	60,625.03
1916–17	30,397.51	6,287.49	36,685.00	56,361.82	23,187.80	79,549.62
1917–18	31,350.51	17,464.04	48,814.55	59,852.51	15,018.68	74,871.19
1918–19	35,395.82	19,440.94	54,836.76	63,556.20	23,114.49	86,670.69
1919–20	80,473.51	27,023.15	107,496.66	83,510.09	16,061.74	99,571.83
1920–21	97,056.43	25,985.23	123,041.66	92,035.38	33,465.38	125,500.76

TABLE 21.

A.—CORRESPONDENCE STUDY.

Institutions.	Maximum number of courses or semester hours students allowed to take at same time.	Maximum number semester hours allowed per year.	Fee.	Special faculty or reader.	Mixed classes.	Units allowed for entrance to college.
University of Kansas.	2 courses, 10 hours.....	Nominal limit 10 hours; no stated limit.	$15 per year for residents; $20 for nonresidents; $4 per credit hour for less than 4 hours.	No; except for Latin and history; 1 part-time history and for English and education.	Yes; out of school persons enrolled without credit.	No limit.
Kansas State Agricultural College...	Recommended not more than 2.	10 hours.....	Vocational courses $3 for residents. Credit courses $10 per year for residents, $15 for nonresidents.	Yes; in considerable part.	Yes; but largely separated in vocational, credit, and noncredit courses.	No limit.
Kansas State Normal School.	2 courses.....	8 hours; 12 by permission special committee.	$15 for 8 hours per year or $4 per credit hour. Nonresidents $20.	A few special readers....	Yes.....	No limit.
State Manual Training Normal School.	10 hours, but not more than 2 courses.	10 hours.....	$10 for 4 hours for residents. $15 for nonresidents, $2 for each additional hour.	No.....	Yes.....	No limit.
Fort Hays Normal School.	Recommended not more than 2. Additional courses by special permission only.	"Not expected" to complete more than 10.	$10 for 4 hours' course, $2 for each additional hour. Nonresidents $15 for 4 hours.	No; except 1 or 2 special readers for a number of subjects.	Yes.....	Director states not to exceed ¼ total.

TABLE 21—Continued.

A.—CORRESPONDENCE STUDY—Continued.

Institutions.	Semester hours' credit allowed toward bachelor's degree.[1]	Hours credit allowed for life certificate.[1]	College students permitted to carry correspondence courses while pursuing other courses in residence.	Entrance requirements.	Length of time per credit.	Are prerequisites checked?
University of Kansas	60 in liberal arts and school of education. ¾ of work for degree in engineering. Credit not allowed 1 year and 30 hours satisfied in residence.		Only with approval of dean of liberal arts for incompleted courses. Dean of engineering allows new enrollments when impossible to carry full course in residence.	Accept students' word subject to transcript when demanded for either high-school or college correspondence study.	8 assignments, 6 hours' study per assignment.	Catalogue so states.
Kansas State Agricultural College.	No limit, except that 1 year's residence is required before graduation.		Yes; with consent of dean.	In general, to be satisfied.	8 assignments	Special announcement states that they must be satisfied.
Kansas State Normal School	60 hours	30	Yes; but only in lieu of equal number of hours in residence work.	Checked only for college credit.	8 assignments	Yes; with a few exceptions.
State Manual Training Normal School.	60; no previous college residence is required.	30	Yes; in the spring; but residence work reduced correspondingly.	Not checked except on occasion.	15 to 20 meetings for double periods for a 5-hour credit course.	
Fort Hays Normal School	60	30	No	Yes; if students desire credit.	8 assignments	Yes.

[1] Correspondence and extension courses combined.

TABLE 21—Continued.

B.—EXTENSION CLASSES.

Institutions.	Maximum number of courses or semester hours students allowed to take at same time.	Maximum number of semester hours allowed per year.	Fee.	Special faculty.	Mixed classes permitted.[1]	Semester hours allowed toward bachelor's degree.[2]
University of Kansas	2 courses; 3 when student has full time to devote.	No regulation	$5 for 2-hour course	No	Yes	60 in liberal arts and school of education.
Kansas State Agricultural College	Recommended not to exceed 2 courses.	No limit announced	$2.50 per semester-hour credit	No	Yes	No limit.
Kansas State Normal School	2 courses	8 hours required; 12 by permission of a special committee.	$5 to $6 for 2-hour course	No	Yes	60.
State Manual Training Normal School	10 hours; 2 courses	10	2 hours, $6; 3 hours, $8; 4 hours, $10; 5 hours, $12.	No	Yes	60.
Fort Hays Normal School	4 semester hours	8	$10 for 4 hours' credit	No	Yes	60.

Institutions.	Number of semester credits allowed toward life certificate.[2]	Frequency of visits by instructor.	Entrance requirements.	Minimum class group.	Observance of prerequisites.	Length of time per credit.
University of Kansas		Usually 1 per week	Same as for residence classes.	15	Prerequisites may be waived by instructor if he considers applicant qualified to pursue course to advantage.	15 class meetings of 2 hours each for 2-hour credit courses.
Kansas State Agricultural College		Standard is 1 visit every week or 2 weeks. Some departures from this.	College entrance required for those who receive credit.	10	Held rigidly for those who secure credit. Others admitted to same class without credit.	1 credit for 6 meetings of 2 hours each.
Kansas State Normal School	30	Standard 1 visit per week or 1 in 2 weeks.	College entrance must be satisfied if credits are allowed.	15	Catalogue specifies rigid holdings. Careful inquiry failed to reveal operation of rule.	
State Manual Training Normal School.	30	Standard is a visit every 1 or 2 weeks. Much variation from this.	Persons lacking high-school education are enrolled.	10		
Fort Hays Normal School	30	Every 2 weeks at least	High-school graduation for credit. Not rigidly examined.	15	Yes	9 faculty visits and 32 assignments for 4-hour course.

[1] Classes which contain students who have not met entrance requirements as well as those who have.

[2] Correspondence and extension courses combined.

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