

UNITED STATES DEPARTMENT OF THE INTERIOR

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OFFICE OF EDUCATION

WILLIAM JOHN COOPER, *Commissioner*

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SURVEY OF STATE-SUPPORTED
INSTITUTIONS OF HIGHER LEARNING
IN ARKANSAS



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SURVEY COMMISSION

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D. C., May 19, 1931.

SIR: I transmit herewith a manuscript representing the findings and recommendations of a commission which under direction of this office made a survey of higher education in the State of Arkansas. This manuscript should be published for two reasons:

First, it will be of great value as a handbook of reference for the members of the legislature as well as those entrusted with administrative responsibilities for the educational system of Arkansas.

Second, it may enable persons in other States to discover more readily and correct more effectively weaknesses in their own school organizations. This manuscript, for instance, throws much light upon such problems as:

(1) The need of developing in each State a system of education rather than a haphazard conglomeration of schools.

(2) The character and function of a good State department of education.

(3) The responsibility of a State department of education for ascertaining the number of teachers required in the schools of the State and for making adequate provision for their education.

(4) The need of a suitable system of accounting for educational costs and the importance of a uniform system for all the institutions in the State.

(5) The relationship between accessibility of an institution and attendance upon it.

(6) The importance of providing adequate and sanitary living quarters for students who may not live at their own homes.

Such recommendations as would be applicable to Arkansas conditions only are made sufficiently clear, I think, to leave no confusion in the mind of the general reader.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

FOREWORD

On September 7, 1929, the Hon. Harvey Parnell, Governor of the State of Arkansas, addressed a request to Dr. William John Cooper, United States Commissioner of Education, asking that the United States Office of Education " * * * make or cause to be made, under its supervision and direction, a survey of the State-supported institutions of higher learning in Arkansas."

Governor Parnell's letter states that "The subject of the survey would be: (1) To examine the scope and character of the work of these institutions, and (2) to make recommendations as to what policy the State should pursue in the development and maintenance of a State-supported system of higher education."

In response to this request arrangements were made for Dr. Arthur J. Klein, Chief of the Division of Higher Education of the United States Office of Education, to meet with the governor, the State superintendent of public instruction, and the presidents of the State-supported institutions of higher learning in Arkansas, at the governor's office in Little Rock, September 23, 1929. As a result of this preliminary conference certain memoranda of agreement were entered into between the State of Arkansas and the United States Office of Education. These memoranda were, in part to the effect that:

(1) The United States Office of Education should report the results of the survey directly to the Governor of the State of Arkansas.

(2) The advisory committee designated by the governor should consist of C. M. Hirst, State superintendent of public instruction, chairman; J. C. Futrall, president University of Arkansas; H. L. McAlister, president of Arkansas State Teachers' College; J. P. Womack, president Henderson State Teachers' College; V. C. Kays, president Agricultural and Mechanical College, Jonesboro; J. R. Grant, president Arkansas Polytechnic College, Russellville; C. A. Overstreet, president Agricultural and Mechanical College, Magnolia; and Frank Horsfall, president Agricultural and Mechanical College, Monticello.

(3) Dr. Arthur J. Klein, Chief of the Division of Higher Education of the United States Office of Education, should direct the survey and be immediately responsible to the United States Commissioner of Education.

(4) The United States Office of Education should be free to publish the facts as found, but should present a tentative report to the governor and the advisory committee "by means of a round-table conference prior to publication, in order that free discussion may be secured as a guide in making the final report." This conference in no way should restrict the right of the United States Office of Education to accept or reject suggestions.

On September 26, 1929, the United States Commissioner of Education in a letter to Governor Parnell stated that the terms of the memorandum of agreement between the State of Arkansas and the United States Office of Education met with his approval. On October 4, 1929, State Superintendent C. M. Hirst, chairman of the advisory committee, notified the United States Commissioner of Education that the terms of the memorandum of agreement were satisfactory to Governor Parnell and to the committee.

Consequently, under the direction of Dr. Arthur J. Klein a large amount of data was collected by questionnaire and other methods, relating to the status and the problems of the State-supported institutions in Arkansas. When these data were thoroughly studied and digested they were made the basis for an intensive field study of the institutions. This field study began February 24 and ended March 15.

The survey staff participating in this field study consisted of—

First, the responsible commission—Arthur J. Klein, Chief of the Division of Higher Education, United States Office of Education, director; John W. Withers, dean of the School of Education, New York University; and William B. Bizzell, president of the University of Oklahoma.

Second, the assisting specialists—William T. Middlebrook, business manager, University of Minnesota; Roy O. Billett, instructor, department of principles and practice, College of Education, Ohio State University, and specialist in school administration, National Survey of Secondary Education; and Ben W. Frazier, specialist in teacher training, United States Office of Education.

In the collection of preliminary data and in the field survey work the survey commission received the most friendly and helpful cooperation from the officers and faculties of the various institutions of higher learning, and from the State superintendent of public instruction and all the members of his staff.

SURVEY OF STATE-SUPPORTED INSTITUTIONS OF HIGHER LEARNING IN ARKANSAS

Chapter I

Introduction

Arkansas is not a wealthy State. Its educational system is ranked low among the 48 States by nationally known educators. These two facts are intimately connected. The most important problems, therefore, that confront the State are: (1) The problem of so coordinating the educational system of the State that the money expended will secure the largest possible return in the social and economic benefits that result from education; (2) the problem of devising means of securing additional funds which will accelerate the development of education in Arkansas so that it may more quickly reach the level and standard of educational opportunity provided by the United States as a whole.

The facts and discussion that follow are in the main concerned with the first of these problems. Additional expenditures beyond those required for the coordination of the existing system may well wait upon the time when the spirit and attitude of the institutions, of the local communities, and of the State as a whole are such as to subordinate all other considerations to those of state-wide welfare.

Higher education in Arkansas must be studied: (1) With reference to the nature and extent of public-school facilities provided as a basis and background for higher educational development; (2) with reference to the articulation of higher institutions with public-school development; (3) with reference to the function of the higher institutions in providing teachers for the public schools; (4) with reference to relationships among the higher institutions themselves and with reference to the coordination of the functions they exercise other than those of teacher training. Each of these phases of the problem will be discussed in some detail prior to consideration of the ability of the State to support education. Certain special problems that are of importance in securing better coordination and more effective educational service will be discussed in the concluding chapters.

Chapter II

The Public Schools and Higher Education

Throughout this discussion the fundamental point of view has been maintained that the so-called problems of elementary education, of secondary education, and of higher education are only phases of one and the same problem. The problems of a single element of the State's educational system can not be solved without reference to the problems of other elements. This is as true of the dependence of the elementary schools upon the higher educational units as it is of the dependence of the colleges upon secondary education. It is necessary, therefore, to examine briefly some of the conditions that underlie these relationships and the results that flow from these conditions, especially with reference to those that concern the dependence of the higher institutions upon the lower schools.

Some facts are so obvious that refined methods of demonstration are superfluous. Such a fact is the inadequacy of Arkansas public schools for the service they should render. Only a few of the criteria for indicating the efficiency of a school system need be considered.

Table 1 shows that in 1925-26 Arkansas¹ was far below the average of the United States in number of days per year schools were kept in session, in number of days attended per pupil enrolled, and in number of pupils attending daily for each 100 pupils enrolled. As compared with the median of six contiguous States, Arkansas appears at less disadvantage. She even exceeds the median of her neighbors in the average number of days her secondary schools are kept in session. But this advantage is insignificant in view of the fact that in 1927-28, as is shown by Table 2, Arkansas had but 6.1 per cent of her population 5 to 17 years of age enrolled in secondary schools, as compared with 10.6 per cent enrolled by her six contiguous neighbors and 12.7 enrolled by the United States.

¹ Statistics of State School Systems. United States Bureau of Education Bulletin, 1927, No. 39, p. 16.

PUBLIC SCHOOLS AND HIGHER EDUCATION

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TABLE 1.—*Comparative Data for Arkansas, Her Neighbors, and the United States*¹

State	Average number of days school in session, 1925-26			Average number of days attended per pupil enrolled	Number attending daily for each 100 enrolled
	Elementary	Secondary	All		
1	2	3	4	5	6
United States.....	171.3	179.3	169.3	135.9	80.3
Tennessee.....	149.4	176.0	152.2	105.5	69.3
Missouri.....	166.2	173.5	167.5	138.9	82.9
Oklahoma.....	147.1	158.0	148.9	102.0	68.5
Texas.....	145.2	170.8	134.7	114.9	85.3
Louisiana.....	145.2	170.8	148.4	112.1	75.6
Mississippi.....	143.3	176.3	141.0	102.4	72.6
Arkansas.....	143.3	176.3	146.4	103.0	70.4
State median.....	148.2	172.1	148.7	108.8	74.1

¹ "Statistics of State School Systems," United States Bureau of Education Bulletin, 1927, No. 39, p. 16.

TABLE 2.—*School Enrollments Calculated from Data from Advance Sheets—Biennial Survey, United States Office of Education, 1927-28*¹

State	Per cent State population is of United States population	Per cent population 5 to 17, inclusive, is of total population	Per cent of population 5 to 17 years of age which is in elementary and kindergarten schools			Per cent of population 5 to 17 years of age which is in secondary schools			Per cent which number of college and university students is of population 5 to 17 years of age, inclusive		
			Boys	Girls	Total	Boys	Girls	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12
United States.....	102.0	23.7	35.0	33.8	68.8	6.1	6.6	12.7	1.8	1.2	3.0
Tennessee.....	2.1	30.1	41.3	39.8	81.1	3.8	4.9	8.7	1.1	.9	2.0
Missouri.....	2.9	24.4	33.0	31.6	64.6	6.9	7.6	14.5	1.9	1.0	3.0
Oklahoma.....	2.0	30.8	40.2	38.4	78.6	6.8	6.8	12.6	1.0	.9	1.9
Texas.....	4.6	28.8	33.5	31.0	64.5	6.4	7.3	13.7	1.2	1.3	2.5
Louisiana.....	1.6	30.3	30.9	31.3	62.2	3.5	4.5	8.0	1.0	.8	1.8
Mississippi.....	1.5	39.1	38.8	40.5	79.3	3.6	3.6	7.2	.5	.6	1.1
Arkansas.....	1.6	32.1	34.5	36.0	70.5	2.8	3.3	6.1	.6	.4	1.0
State average (median).....	2.0	30.2	36.1	35.0	71.6	4.8	5.8	10.6	1.0	.9	1.95

¹ Of special importance.

In other words in 1927-28, the latest year for which comparable figures are available, the United States was providing high-school facilities for more than twice as many boys and girls, relatively speaking, as was Arkansas. Also her six contiguous neighbors were providing high-school facilities for nearly twice as large a proportion of their boys and girls as was Arkansas. To equal the average of the United States in secondary education Arkansas high schools should have had, not 35,000 pupils but 70,000; and to equal the average of her six contiguous neighbors in secondary education, Arkansas should have had 58,000 pupils in her high schools.

In this connection the following quotation is illuminating:*

Two hundred and forty-one of the accredited public high schools are located in 37 of the counties. The other 38 counties [in Arkansas] contain only 50 accredited public high schools. In these 38 counties there are 61,046 boys and girls of high-school age. Only 8,603 of these boys and girls * * * were enrolled in high school during 1925-26.

In other words, if Arkansas at that time had provided the facilities for elementary and secondary education to which the boys and girls of these 38 counties were entitled, the Arkansas program for secondary education not only would have equaled, but would have excelled the average secondary program in the United States in 1926. That the children of these 38 counties, and of other counties, have been grievously neglected no unprejudiced observer can deny. No State can afford to continue this neglect.

In spite of these deficiencies the increase in the number of graduates of 4-year high schools turned out by Arkansas in recent years is a source of satisfaction to those interested in the State's educational program. Table 3 shows strikingly how large and how rapid this increase has been.

TABLE 3.—*Number of graduates from 4-year high schools in Arkansas for certain years*^a

Year	Number of graduates	Year	Number of graduates
1914-15.....	1,071	1925-26.....	4,678
1919-20.....	1,850	1926-27 ^b	4,773
1924-25.....	2,705	1927-28 ^b	5,276

^a A High School in Reach of Every Boy and Girl. Bulletin No. 10, 1926, state department of education, Little Rock, Ark., p. 448.

^b From biennial Report of State Superintendent of Public Instruction, state department of education, Little Rock, Ark., 1928, p. 22.

These figures include all 4-year high schools, both public and private. In view of the fact that the State has only approximately two-thirds as many students in high school as it should have if it reached the standard of its neighboring States, the number of graduates is still very much less than will be required to enable the State to send to college as many boys and girls as the size of its population and the utilization of its natural and commercial resources demand. Certain facts in regard to this dependence of higher education upon public-school facilities are worthy of consideration.

According to reports of the United States Office of Education the public high schools of the United States in 1927 graduated 424,487 students. Of this number 129,630, or 30.5 per cent, attended college the next year. The report of the State superintendent

^c Hill, A. B. Four Years with the Public Schools. State department of public instruction, Little Rock, p. 731.

of public instruction in Arkansas shows 4,778 high-school graduates in 1926-27. If it is assumed that 30.5 per cent of these should have attended college in 1927-28, the State would have furnished 1,445 freshmen to higher institutions in that year. The registrars' reports for the year 1928-29 show a total of 1,447 freshmen in the seven State institutions. It is obvious that Arkansas is now sending as large a percentage of its high-school graduates to college as are the other States. Expansion of higher education to any considerable extent must wait upon expansion of the programs of elementary and secondary education.

Some measure of the need for expansion of higher education facilities that can come only as a result of more highly developed elementary and secondary educational opportunities is afforded by examination of Table 4.

TABLE 4.—Number of students enrolled in the fields of higher education, the number that should have enrolled, and the deficit ¹

Field of higher education	Number of students Arkansas has enrolled within State	Number of its own students Arkansas should have enrolled within State	Deficit
1	2	3	4
Graduate.....	14	246	232
Liberal arts.....	1,578	3,321	1,743
Agriculture.....	188	2,183	1,994
Commerce and business.....	0	463	463
Dentistry.....	0	135	135
Engineering.....	187	655	468
Law.....	0	255	255
Medicine.....	26	171	135
Pharmacy.....	0	112	112
Total.....	2,003	7,540	5,537

¹ Based on data for 1923.

Although this table is based upon data of 1923, the situation has not changed materially since that time. For example, in 1930 there are 18 graduate students, 2 pharmacy students, and about 50 commerce and business students enrolled in Arkansas institutions of higher learning. The figures of columns 3 and 4 in Table 4 are determined by assuming that since the population of Arkansas is 1.6 per cent of that of the United States it should furnish the same proportions of the total number of students that are found in the United States in each field. It is assumed, for example, that since the United States trains 23,661 graduate students, Arkansas should furnish 1.6 per cent as many, or 379, and so on, for the remaining nine fields of study.

However, since on the average for the entire United States only three-fourths of the students furnished by a State are trained in the institutions of the home State, Arkansas should have of its own students three-fourths of the total, the numbers represented in column 3 of Table 4. This method of calculation assumes that in exchange for its own students that go elsewhere for their education it attracts no students from other States. These figures are, of course, very rough approximations, but the entire weight of error is such as to make them represent minimums of reasonable expectation. They, therefore, serve to emphasize the task that must be performed if Arkansas is to attain higher educational parity with the remainder of the United States. A prerequisite to such progress is, as has already been said, great improvement in the State's elementary and secondary educational program.

Since the report of the survey of the public-school system of Arkansas in 1921 was submitted, considerable effort has been expended to put the public schools on a higher plane of efficiency. At the present time the outlook for rapid improvement in the public-school system of Arkansas is brighter than it has ever been. This is due, first, to the prospects of increased revenue from the sources conceded by all experts on taxation to be the most equitable and most certain of collection; and second, the eagerness on the part of those in authority to see that these newly available resources be used economically and intelligently for the rapid advancement of the schools.

Certain districts of Arkansas can not maintain adequate schools from the proceeds of any reasonable general property tax. Without equalization great areas of Arkansas must remain indefinitely without hope of educational progress. One-room schools are the rule, with inadequate equipment, inadequate teacher preparation, and inadequate supervision. In 1927-28 Arkansas had 4,594 school districts. Three thousand seven hundred and fifty-eight of these districts maintained but 1-room schools. Figures of the State department of education show that less than 10 per cent of the children of the small schools ever reach high school.

Of all the forward steps that Arkansas could have taken tending toward rapid improvement of elementary and secondary education, the creation of an equalization fund under the control of the State department of education contained most promise of results.

The State has provided such a fund. This fund, raised from income taxes, excise taxes, and severance taxes, if made sufficiently large to render real aid where aid is needed, and if under intelligent and skillful administration, will be most effective in raising the general level of public-school education. In general it appears that the fund is now being widely distributed. Local districts are

required to tax themselves to the extent of their ability before they share in the benefit of the fund. The State thus helps those who help themselves. In the schools of the districts receiving aid from the fund, minimum standards are established by the State department of education for the training of teachers, the length of the school year, regularity of pupil attendance, and for other requirements. Continuous scientific study should be made of all factors involved in the distribution of this fund to the end that its use yield the rich returns to Arkansas that should be derived.

It is profitless to attempt to calculate here the standards of public-school excellence that the State will be able to attain with the funds now available. That they will be greatly improved no one can doubt. It seems certain, however, that greatly increased sums must eventually find their way into the equalization fund if the State is to succeed within a reasonable period in raising the standards of elementary and secondary education to the plane they should occupy in Arkansas. To abandon either the fund or the plan of raising it is to abandon hope for marked advancement of public education in Arkansas during this generation.

Clearly no program of expansion for higher education in Arkansas can be justified if it overlooks the great need for development and amplification of the elementary and secondary school facilities. The life and growth of the higher institutions themselves depend upon such development.

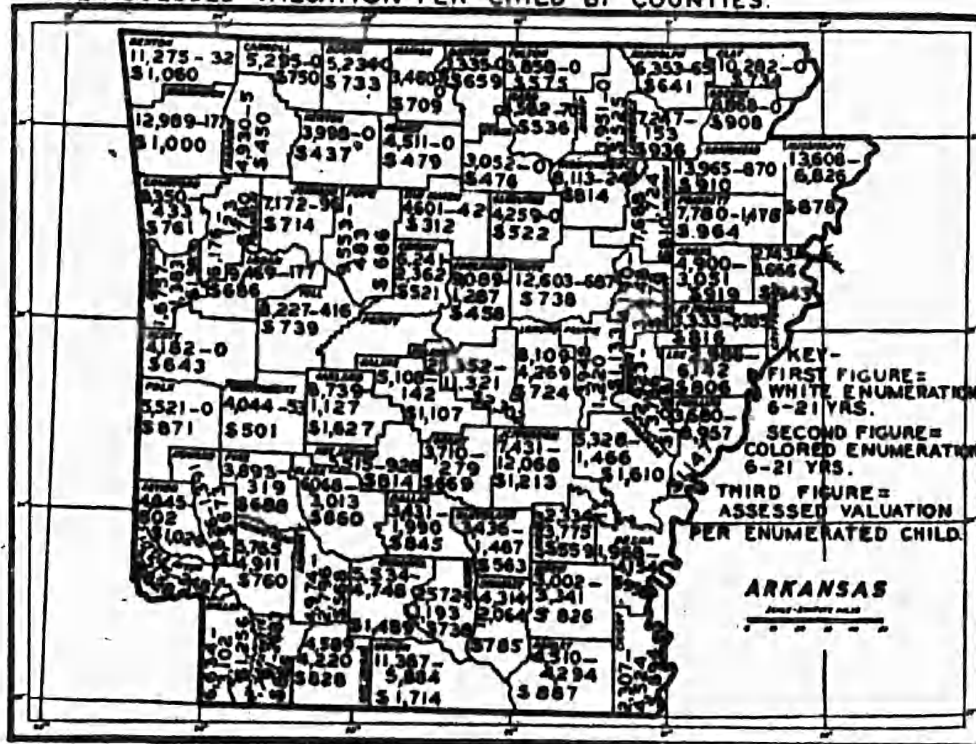
Location of the University

When the university was established at Fayetteville, the northwest section of the State contained the greater portion of the population and wealth of Arkansas. The eastern, Mississippi River, section was largely undeveloped swamp land and the southern area was thinly settled and economically unimportant. The high northwest region first developed academies and public schools upon which a program of higher education might be built. The location of the university in this section, therefore, was not illogical. But as the State developed in the east and south the economic and population centers shifted until the university's position became geographically isolated from the main currents of State life and increasingly inconvenient of access to a large proportion of its constituency. This isolation was accentuated not only by distance but also by reason of the modest economic resources of the citizens in the more recently developed areas. As recently as 1921 a survey conducted by the United States Office of Education recommended that the State determine definitely whether the university should not be moved to Little Rock. It appears probable that this would have been in accord with the sentiment of the people of the State had it not involved the

ral also that the demand should be for agricultural schools. The four agricultural and mechanical schools were therefore established at Russellville, Jonesboro, Monticello, and Magnolia. These institutions, with the exception of the one at Russellville, which is midway between Fayetteville and Little Rock, and not far from the State Teachers' College at Conway, were in the rather remote and isolated quarters of the State to the northeast, southeast, and southwest.

Secondary nature of these schools.—These institutions were established as agricultural high schools. Their development merely reflects a situation common in the historical development of practically

FIG. 2. ASSESSED VALUATION PER CHILD BY COUNTIES.



all public higher institutions in the Middle West and South. The University of Arkansas, for example, was in fact during its early history, like most of the other land-grant colleges, primarily what would be known to-day as a secondary school of agriculture. Its work was very elementary.

Reference to the university circulars and bulletins for the year 1872-73 shows that the school now known as the University of Arkansas was first designated as the "Arkansas Industrial University." That the work of the school was largely what would to-day be regarded as secondary in nature may be inferred from the following subjects prescribed for the first term of the freshman year:²

² Catalogue of the Arkansas Industrial University, Circular for 1872-73, News Power Press Print, Fayetteville, Ark., p. 11.

"Regular" studies.—1. Algebra. 2. Physical geography—elementary. 3. Caesar's Commentaries and Harkness's Introduction to Latin Composition. 4. Practical agriculture and pomology—lectures. 5. English diction and elocution. 6. Natural philosophy.

"Optional" studies.—1. Harkness's First Greek Book. 2. French.

The "qualifications for admission" to the Arkansas Industrial University in 1872 also indicate the secondary nature of the work to be done. The requirements read as follows:

For admission to the freshman class—candidates must pass a satisfactory examination in reading, spelling, penmanship, algebra to equations of the second degree, English grammar, geography, arithmetic, Harkness's Introductory Latin Book, and Harkness's Latin Reader, or their equivalents; if unable to pass such examination, they may be placed in the preparatory department. Candidates must also be of good moral character and not under the age of 14 years.

Omission of secondary subjects a gradual process.—The omission of high-school or secondary courses from the offerings for university credit was not accomplished instantaneously. As late as 1898 plane geometry and algebra, undoubtedly of a secondary nature, were being given for college credit. It is not entirely possible to judge from the titles of other courses the nature of their content or the manner of their presentation, but it seems that by the year 1905 very little or no work of a secondary nature was being given in the University of Arkansas for college credits.

The reason for the situation just described exists, of course, in the fact that during the early days of the university there were not enough outside preparatory schools to provide a student body solely of college character. As the catalogue of 1872-73 states: "In view of the fact that the educational facilities in this State have been and are * * * such that young persons * * * have been and are unable properly and sufficiently to prepare themselves * * * there has been established * * * a preparatory department."

Much the same situation existed with reference to the four agricultural and mechanical schools at Russellville, Jonesboro, Monticello, and Magnolia at the time of their establishment. They supplied high-school facilities at State expense for local communities that had not yet developed their own secondary schools. Provision for high-school training by these institutions created a demand for something more. The poverty of the people did not permit any very large proportion of the graduates of the four schools to go away to the university or to private colleges for further education. The local State-supported institutions therefore gradually developed courses above the high-school level even before 1925, when they were defi-

nately authorized by State law to provide the two years of a junior college program.

The economic and educational conditions that made it a legitimate function of the State to support the agricultural and mechanical schools as general 4-year high schools have undergone a striking change and these changes are now being accelerated rapidly. When these institutions were established as high schools the local communities did not have and could not support their own secondary schools. The bill providing for the establishment of the four agricultural schools was passed in 1909. "At the close of the school year 1908-9 * * * there were only thirty-one 4-year high schools in the State. Some of these schools were not provided with teaching force and equipment adequate for more than a 3-year high school." But in 1927-28 Arkansas had one hundred and ninety-one 4-year high schools giving 15 or 16 units of approved work and ninety-eight 3-year secondary schools offering 12 units of acceptable high-school work. These and the 2-year schools in 1927-28 had 34,451 high-school students and the 4-year schools graduated 5,226 students.⁵ The years 1909 and 1928, therefore, present in striking contrast pictures of secondary-school facilities in Arkansas.

In the interest of good citizenship and economic advance the State was justified in 1909 in taking up the obligation to supply facilities for secondary education by creating the agricultural and mechanical schools. But the regional State-supported high schools were a makeshift to be used only until such time as another and better policy could be put into operation, that of providing a public high school within reach of every boy and girl in the State. This policy could hardly be started until the local communities were able and willing to take on part of the burden. They have now to a considerable degree expressed their desire and determination to do this. The State has in no wise abandoned the policy of aiding in this effort. Quite the contrary, The wise policy of State aid through the provision of equalization funds under the administration of State educational officers is designed to render the maximum of assistance to local efforts to raise the standard of public education in the State of Arkansas.

Continued Secondary School Functions of the Junior Colleges

The question very naturally arises as to whether the State junior colleges still have a function to perform in the field of high-school education during the period of development of the State's public-

⁴ Hill, A. B. A High School in Reach of Every Boy and Girl. Little Rock, Ark. State Department of Education, p. 400.

⁵ Biennial Report of State Superintendent of Public Instruction, 1927-28, p. 22.

Further, because of economic conditions and the character of the elementary schools there is considerable retardation among Arkansas public-school students. For example, in 1926, 69.8 per cent of the population of the United States between the ages of 5 to 17 were enrolled in kindergarten or elementary schools; in Arkansas 75.7

[illegible]

Since this is true, many students who have attained an age and self-consciousness more advanced than their school attainments drop out of high school rather than be grouped with much younger and more immature pupils. They will not return to high school in their local communities but in many instances are willing and even anxious to continue their education if they can "go away to college" even though the work they take there is of secondary school grade. Their associates are older and more congenial and the conditions of residence and instruction are likely to be more suitable to their well-

developed sense of maturity. These reasons seem to justify continuation of a certain amount of high-school work by the State junior colleges.

How much work of this kind should be undertaken depends in part upon the rate of the development of local public schools. In all sections of the State the 1-year high school is giving way rapidly to the 2-year high school. The junior colleges are thus finding that the demand for tenth-grade work is rapidly declining. It appears probable that they will be justified in dropping all high-school work below the eleventh grade in the immediate future.

Whether this process of elimination should be extended to the eleventh and twelfth grades as the local high schools increase their offerings to these grades upon a standard basis is a somewhat different question. The development of the local high schools in this way will doubtless be relatively rapid, but it will be several years before standard 4-year high schools will be available to all the boys and girls of the State. The accumulation of students retarded by reason of economic conditions and by the nature of the lower schools rather than because of low mental ability will continue, therefore, for a considerable period and reduction of what may be called the retarded surplus will lag behind actual improvement in the school system. It is therefore advisable that the junior colleges continue to offer the eleventh and twelfth grades of the high-school work.

Relationship of High School to Junior College Work

Even if it were possible to predict that within a comparatively short time the local high schools would all become standard and the surplus of overage pupils be reduced to the normal for the United States, the commission would still be inclined to recommend the continuation of eleventh and twelfth grade work by the junior colleges. It is generally agreed that students of these grades under normal rates of school progress are more closely related in psychological interests and attitudes to the thirteenth and fourteenth grades than to the ninth and tenth. It is further agreed that psychologically and educationally the thirteenth and fourteenth grades are of secondary school nature. From these convictions, developed as a result of studies and tests made in recent years, have come in large part the attempts to adjust secondary school and college organizations. Without entering into the merits of the many proposals for reorganization, the commission is agreed that for Arkansas conditions the union of the eleventh, twelfth, thirteenth, and fourteenth grades into a single unit in the State junior colleges has very decided advantages.

It should be clearly understood that the commission is not recommending this plan for adoption in the entire high-school-college sys-

tem of the State. It does recommend it for adoption in the State junior colleges. And in harmony with this plan it also recommends that the State university organize its instruction into distinct lower and upper divisions consisting, respectively, of the thirteenth and fourteenth grades and of the junior and senior years of college. Such an organization of instruction does not, in the opinion of the commission, require administrative separation of the junior and senior colleges of the university. In accordance with this recommendation the junior colleges would become 4-year intermediate schools offering unified and continuous work comparable to the eleventh and twelfth grades of high school and the freshman and sophomore years of college. There would be no break in the middle of this period. The graduates of the junior colleges who desired to do so could enter the university with the minimum handicap.

From the standpoint of service to the constituents of the junior colleges, as has already been pointed out, the commission believes that this organization will be of marked value. Further, it believes that the independent, separate, 2-year junior college is not an effective educational unit since it provides entirely too short a period in which to accomplish the purpose that should dominate the State junior colleges. Under Arkansas conditions of economic and social progress their task involves in a very major respect the creation of social standards, customs, and attitudes in their students as well as giving them schooling in the ordinary sense. Two years constitutes too short a period in which to accomplish this task. The officers and faculties of the junior college bear witness to this fact.

Furthermore, mere retention of the eleventh and twelfth grades, and of the freshman and sophomore college years, as more or less separate units, with a sharp break in passing from one to the other, would be wasteful of money spent for administration, physical plant and equipment, and for teaching. It is true that the regional accrediting associations now require that such a distinction be made in teaching force, use of classrooms, housing of students, and in financing. That this is done with little confidence and considerable hesitancy is evidenced, however, by the frequency with which the letter of the law, to say nothing of its spirit, is violated. As a matter of fact, these regulations quite generally survive without conviction, and the greatest of the regional accrediting bodies, the North Central Association of Colleges and Secondary Schools, has authorized a number of junior colleges to conduct an experimental trial of continuous 4-year intermediate curricula and organizations without peril to their standing in the association.

Arkansas can not afford seven 4-year public colleges.—The State has not yet attained a standard of public education comparable to that of its near neighbors and is even farther from attaining the

average standard for the United States as a whole. Until these goals are attained the development of higher education must in a sense be subordinated to the achievement of these minimums of educational opportunity. This does not mean that higher education should be held in abeyance until a universally high standard of public schools has been attained. It should be fairly obvious to the most obtuse intelligence that the welfare of the State and of its children requires education for teachers, doctors, lawyers, business men, and others who play the part of leaders in every walk of life. The life of Arkansas could not go on under modern conditions of interdependence between occupations, communities, and States with an educational system which aimed to provide everyone with a high-school education and no one with an education beyond high school. But it is clear that the State must exercise an act of judgment to determine in accordance with existing conditions how its funds shall be distributed over the entire range of educational effort from kindergarten to professional school.

It is the judgment of the survey commission that education upon all its levels and phases needs increased support in Arkansas. Further, it is the conviction of the survey staff based upon examination of much evidence and upon the informed opinion of hundreds of Arkansas citizens that the State is both able and desirous of providing such additional support if it can be assured that the money will be productively and economically expended to secure the largest possible returns in the human happiness and economic welfare of the people.

The survey commission is deeply conscious of its own obligation and duty to afford such assistance and guidance as lies within its abilities and the limits of the mission which it was invited to undertake by the governor, the State superintendent of public instruction, and the presidents of the State institutions of higher education. It would be false to the trust that has been reposed in it if it failed to register its conviction that *the State is not able now and will not be able in the immediate future to extend the length of its junior college courses beyond the present two years of college work.*

This matter is treated thus earnestly because the history of junior colleges tends to show that, once established, they seek to become 4-year colleges with the right to grant degrees. This ambition is not entirely absent in some of the agricultural and mechanical schools of Arkansas. As the minimum standards of junior college work are attained, this ambition is very likely to ally itself with the local aspirations of the communities in which the schools are located, and find expression and political influence through local bodies. Frequently these desires will be given plausible aspects of economical development through the gift of lands and plants of private institu-

tions that are rapidly becoming unable to maintain themselves or that have already become defunct. These gifts may prove exceedingly expensive to the State in the long run, although they may, with the State funds that must be provided for their maintenance and conduct, prove of economic benefit to local business interests. The State must decide ultimately whether these local influences are to be permitted to control public funds and public educational policies in the interests of local advantage or whether the resources of the State will be utilized and its educational program designed to serve the best interests of the State as a whole. In the judgment of the survey committee the latter decision should be and ultimately will be made.

It is of fundamental importance to the economical and effective development of the Arkansas system of public education from the grades to the university that the junior colleges be required to limit the upper level of their work to the fourteenth grade.

The Changing Functions of the Agricultural and Mechanical Schools

Many changes have occurred in the industrial, economic, and social status and standards of Arkansas since the Arkansas Industrial University was established in 1871, and indeed since the four agricultural and mechanical schools were authorized and established in 1909. The schools quite properly have changed their programs in an endeavor to keep pace with the demands of new social and economic orders. This fact is no more strikingly illustrated than with respect to changes that affect agricultural education. The university and the agricultural and mechanical junior colleges were founded primarily as agencies of agricultural education, but this function is rapidly becoming of secondary importance. This is evident by the enrollments in the agricultural courses upon a college level. Only 15 per cent of the students, or 203 out of a total of 4,365, in the year 1928-29 were carrying agricultural courses as a major field of interest.

Reasons for the Decline of College Enrollment in Agriculture

The reasons for such a small percentage of students being interested in agriculture are not commonly understood by persons who think of college training in agriculture as preparation for dirt farming on the ordinary family farm. It is argued that the State is largely agricultural, that agricultural education is therefore desirable and necessary, that the State has provided the agricultural and mechanical junior colleges and the college of agriculture at the university to furnish this type of education. It is concluded that the small enrollment of college agricultural students in the State is due to the failure and unwillingness of the institutions to provide this type of educational service; that, their interests are concentrated

upon remote academic and impractical objectives. The commission does not believe that this is the case. Enrollments in agriculture for the purpose of becoming dirt farmers are becoming smaller and smaller in every agricultural college in America. It is inconceivable that this is due everywhere to institutional preoccupation with interests of impractical character.

As a matter of fact work in agricultural colleges in the days when such training meant preparation for actual small farm operation was primarily what would now be known as high-school work. There were no vocational high schools where agriculture could be studied. Such high schools established under the impetus of the Federal Smith-Hughes law now, in Arkansas as in other States, provide practical agricultural education superior to that of the best agricultural colleges of 20 or 25 years ago. In those days there was no agricultural extension service reaching almost every rural community with aid and interpretation in terms of practical application to farm use of the latest scientific investigations and discoveries.

Present Functions of the College of Agriculture

This does not mean that the university college of agriculture has no longer a function to serve in the agricultural life of the State. It has a whole series of tremendously important services to render, but these services are less direct and less easily understood by persons ignorant of the conditions under which modern agriculture is carried on.

Farming to-day in Arkansas would, indeed, be a poor and unproductive occupation and the farm class would rapidly become a peasantry if it were not for the agricultural colleges of this and other States. But it is no longer their proper function to emphasize direct training for the dirt farmer. Only ignorance of the fact that vocational high schools and the cooperative agricultural extension can do this service better, more continuously, more conveniently, and more cheaply in the home community of the farmer himself can account for the demand that the university college of agriculture and the agricultural and mechanical junior colleges carry on wasteful and expensive attempts to give direct training for general farming.

The students who attend these institutions show better understanding of the true situation than the politicians and parents who make such demands. The students will not enroll in agricultural courses for this purpose. If they wish training as farmers they take vocational agriculture in high school and depend upon the aid that they have a right to ask of the cooperative agricultural extension service. Those who enroll in college agriculture are looking to careers as scientists, teachers, extension agents, in business related to agricul-

ture, or in highly specialized types of agricultural production. See Table 5.*

TABLE 5.—Occupations of graduates and ex-students of land-grant colleges

Occupation	Graduates	Ex-students
Farming.....	937	498
Business and professional work in commercial fields in agriculture.....	591	129
Teaching, research, extension, etc., in agriculture.....	1,718	96
Professional engineering.....	61	51
Work closely allied to engineering.....	76	73
Teaching, research, extension, etc., in engineering.....	15	6
Professional forester.....	47	13
Business or professional work on commercial forestry.....	26	24
Teaching, research, extension, etc., in forestry.....	30	2
Practicing veterinarian.....	13	7
Business or professional work in commercial veterinary medicine.....	3	3
Teaching, research, extension, etc., in veterinary medicine.....	12	7
Education (not in one of preceding fields).....	556	174
Manufacturing.....	131	86
Transportation.....	28	28
Banking and finance.....	76	69
Insurance and real estate.....	144	81
Commission and brokerage.....	22	7
Public service.....	27	12
Wholesale merchandising.....	133	108
Retail merchandising.....	155	131
Construction.....	22	14
Other (commerce and business).....	65	43
Other (professional).....	196	131
Other (nonprofessional).....	147	147
Total.....	5,231	1,860

What Graduates of Agricultural Colleges are Doing

Table 5 shows that 937 graduates of agricultural courses in the various land-grant colleges out of a total of 5,231 graduates replying entered farming. These figures include those who entered highly specialized types of farm production but confirm the statement that agricultural colleges no longer emphasize direct training for the dirt farmer. They also confirm the judgment of students now in the Arkansas colleges, respecting their plans for the future. They further show that those who would expect or require that the curriculum taken by all students in the agricultural and mechanical colleges be aimed at preparing the student for an immediate return to farming are decidedly wrong in their expectations or requirements.

What Students in Arkansas Colleges Plan for a Life Work

Table 6, compiled from replies made by the students in the various State-supported institutions of higher learning in Arkansas to the question, "After graduation what do you plan to do?" shows that 214 students (or about 6 per cent) out of a total of 3,610 replying, plan to enter agriculture after graduation. Fourteen hundred and six plan to enter teaching.

* Derived from data of the Land-Grant College Survey, U. S. Office of Education bulletin 1930, No. 90.

TABLE 6.—What Arkansas college students plan to do after graduation

	Jonesboro			Monticello			Magnolia			Russellville			Arkadelphia			Conway			Fayetteville			Pine Bluff			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Teaching.....	24	86	110	16	76	92	17	94	111	28	56	84	21	91	112	86	355	441	74	300	374	13	69	82	279	1,127	1,406
Agriculture.....	29	29	58	38	1	39	32	1	33	33	1	34	1	1	2	2	3	5	60	4	64	14	14	28	208	6	214
Trade.....	1	1	2	5	2	7	5	1	6	1	1	2	1	2	3	3	6	9	13	26	13	20	33	44	5	49	
Home making.....	22	18	40	19	10	29	21	6	27	12	12	24	6	3	9	16	5	21	188	9	197	15	12	27	1	55	56
Business.....	41	2	43	26	3	29	45	15	60	20	3	23	20	4	24	31	4	35	474	30	504	30	16	46	299	66	365
Profession.....	16	4	20	10	18	28	10	2	12	13	4	17	5	5	10	4	3	7	53	32	85	5	12	17	687	73	760
Other.....	47	27	74	17	18	35	78	54	132	15	19	34	20	15	35	24	24	48	86	102	188	19	25	44	116	54	170
Undecided.....																									306	284	590

It is perfectly evident that the preconceived notion of boards, of trustees, and of legislators can not force the students of the Arkansas colleges to train to become dirt farmers. If they and the people of the State wish to serve the youth of the State, their conception and direction of the educational programs of these institutions must be reconstructed upon other lines than those of 20 years ago.

Chapter III

Teacher Training

In no respect is the intimate and unavoidable interdependence of public schools and higher educational institutions more evident than in their different but common relationship to the teaching staff of the State. The public schools can not be brought to a standard comparable to that of the remainder of the United States and designed to select and train students for successful prosecution of college and university preparation to fill the more responsible positions of leadership and service in the life of Arkansas unless they have a sufficient number of professionally qualified teachers. Professionally qualified teachers in sufficient numbers can be secured only from the higher institutions. If the candidates for training as teachers that knock at the doors of the teacher-training institutions come from the high schools poorly prepared, the task of the colleges and university becomes a hopeless struggle to provide the necessary training in the time that students are under their influence.

The public schools of Arkansas do not have an adequate number of professionally trained teachers. The number of prospective, well-prepared candidates for admission to the higher institutions is far less than is needed to furnish the high type of teachers that the situation demands. The teacher-training agencies are actually not providing a sufficient number of well-trained public-school teachers to take the places of the less well prepared that leave the school system; in order to furnish any teachers at all to large numbers of schools it is necessary to continue to bring into the system new, poorly prepared teachers every year. This circle of conditions seems to wall the educational life of Arkansas within a discouraging round of mediocrity. The only solution lies in breaking down this wall by extraordinary and concentrated effort upon the part of the State and its educational agencies. This chapter will describe in some detail the conditions that must be faced, and will suggest methods and procedures of attack that in the opinion of the survey commission are practicable and within the resources of the State.

Two matters are of primary importance: First, the numerical problem, the actual number of teachers that the public schools require, and, second, the quality of the teaching force, the problem of

grading upward to attain the high standard demanded of public-school instruction.

In the year 1927-28 ¹ Arkansas had a total of 12,760 teaching positions in the public schools, 10,509 for the whites and 2,251 for negroes. Of the 10,509 positions for white teachers, 8,768 were elementary and 1,741 were high school. Of the 2,251 positions for negroes, 2,124 were elementary and 127 were high school. Of the total number of teachers employed, 9,049 are reported as employed in rural schools and 4,031 in urban schools.

Under present conditions of certification and reporting it is impossible for the State department of education to determine with any accuracy how many of these positions must be filled by new teachers each year. It is estimated, however, that approximately 2,000 positions must be filled annually.

To supply this demand the State must depend upon: (1) The teachers' colleges at Conway and Arkadelphia; (2) the college of education of the State university at Fayetteville; (3) the four junior colleges at Jonesboro, Monticello, Magnolia, and Russellville; (4) the agricultural and mechanical college for negroes at Pine Bluff; and (5) the six privately controlled colleges.

TABLE 7.—Number of graduates or students completing 1, 2, and 4 year curricula in 1928-29, and the number teaching in 1929-30

Total number	Conway			Arkadelphia	Jonesboro			Monticello	Magnolia	Russellville	Total			
	2-year course	4-year course	Rural teacher course	4-year course	1-year course	2-year course	Summer course	2-year course	2-year course	2-year course	1-year course	2-year course	4-year course	Other
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Graduates or students completing course.....	224	89	12	30	19	38	85	37	26	64	19	289	119	97
Teaching in—														
(a) Rural schools (centers of less than 2,500).....	121	32	11	-----	12	12	75	19	18	30	12	200	32	88
(b) Urban schools (population of 2,500 or more).....	68	46	-----	-----	-----	8	8	3	-----	-----	-----	79	46	-----
Total teaching in rural and urban schools.....	189	78	11	23	12	20	83	22	18	30	12	279	101	94
(c) Elementary schools (grades 1 to 6).....	-----	-----	-----	-----	12	6	80	3	-----	-----	12	9	-----	80
1. 1-teacher schools.....	1	-----	-----	-----	2	-----	80	3	-----	-----	2	4	-----	80
2. 2 or more teacher rural schools.....	69	5	7	-----	10	6	20	13	13	30	10	101	5	27
(d) Junior high school (grades 7, 8, 9).....	69	7	4	-----	-----	-----	-----	3	5	-----	-----	77	7	4
(e) Senior high school (grades 10, 11, 12).....	-----	12	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	12	-----
(f) High school (grades 9-12).....	50	54	-----	-----	-----	14	2	-----	-----	-----	-----	64	54	2

¹ Biennial Report of State Superintendent of Public Instruction, 1927-28.

Since, however, the private colleges are and probably should continue to devote most of their energies to fields other than teacher training, the major dependence must be placed upon the State institutions.

How many teachers are these institutions supplying annually? Table 7 shows that the total output of the six State teacher-training agencies, not including the University of Arkansas, in 1928-29 was: (1) 220 high-school teachers, grades 7-12, inclusive, of whom but 73 were graduates of 4-year courses; and (2) 310 elementary teachers, grades 1-6, inclusive, of whom but 5 had four years of training.

To these 530 teachers thus furnished to the public-school system may be added approximately 125 graduates of the university who are reported to have become teachers, making a total of approximately 655 new teachers entering the system from the teacher-training agencies of the State.

A second basis for estimating the relation of supply and demand for new teachers yields similar results. From Table 8 it appears that in 1928 the total enrollment in all teacher-training institutions of Arkansas, both public and private, was 4,121. Eliminating the 440 high-school students as inadequately prepared for the serious work of teaching, there remains a total of 3,681. Some of these are enrolled in 2-year courses, others in 4-year courses. It would be a conservative estimate to say that one-fourth of these students are enrolled as seniors in either 2-year or 4-year courses and are therefore eligible either for a 2-year diploma or a degree. Such an estimate would allow Arkansas about 940 trained teachers annually. However, these figures include students enrolled in summer teacher-training courses, a large proportion of whom are already occupying teaching positions. A better estimate would be based undoubtedly upon the number enrolled in regular sessions. This number is 1,860 (not counting the high-school students). Of this enrollment in regular sessions it may be liberally estimated that one-third will be graduates, thus giving 620 new recruits for the public-school system. This number is so nearly that of the number of graduates actually reported from the State-supported teacher-training institutions that it seems superfluous to call attention to the fact that private colleges in Arkansas, all of which are included in this second estimate, can be expected to contribute very little to the alleviation of the teacher-training needs of the State. The problem is one for State solution.

TABLE 8.—Number of students in Arkansas teacher-training courses 1923-1928¹

Institution	Number students in—		
	1923-24	1925-26	1927-28
1	2	3	4
University and junior colleges.....	882	913	977
Teachers colleges.....	1,625	1,510	1,057
Agricultural, mechanical, and normal school (colored).....	114	14	54
High schools.....	406	717	340
Total.....	3,027	3,154	3,428
Private colleges.....	355	408	593
Private high schools.....	81	151	100
Total in all institutions.....	3,463	3,713	4,121
Total in regular sessions.....	2,650	2,553	2,300
Number of public-school teaching positions.....	9,200	12,183	12,434

¹ Bureau of Education Bulletins, 1929, No. 14; 1927, No. 30; 1925, No. 28. Statistics of teachers' colleges and normal schools.

Still a third way of estimating the deficiency in the number of students enrolled in Arkansas teacher-training institutions, as compared with probable needs, involves a calculation of the ratio of teachers in training to the number of teaching positions. In the academic year 1927-28 the number of students enrolled in the regular sessions of all the teacher-training institutions (including teacher-training high schools) in the United States was 327,288. The total number of public-school teaching positions was 805,608. This means that one teacher was in training for every 2.5 positions. In the same year 2,300 students were enrolled in the teacher-training institutions (including teacher-training high schools) of Arkansas, or one teacher in training for every 5.4 positions in Arkansas. In other words, in 1927-28 the United States was training teachers at 2.7 times the rate of Arkansas. Although the number of teachers being prepared in the United States is thought to be excessive by many competent observers, careful studies show that this excess does not justify reduction of the number in training to the proportions prevailing in Arkansas.

It is useless to attempt upon the basis of data available to estimate for Arkansas the exact degree of inadequacy now obtaining or which will obtain in the immediate ensuing years. Some central agency in Arkansas should be given the function of studying this problem continuously. This agency, preferably the State department of education, should possess the funds and the authority to meet the problem as the study indicates it should be met. Such a study must consider in detail the effects of the following factors: (1) Equalization of educational opportunity in Arkansas is tending and must continue to tend toward consolidation; this means fewer and better teaching positions and reduction of the number of new teachers needed an-

nually; (2) better compulsory education laws and better enforcement will undoubtedly lead to much larger enrollments and tend to increase the number of teachers needed; (3) the natural growth of public-school enrollment that results from increased population will tend to create a demand for an increased number of teachers annually.

The effect of these and other factors can not be reliably predicted for a long time in advance, but must be determined and met annually by continuous study. However, assuming that standards of teacher preparation that characterize progressive school systems are to be enforced in Arkansas, the State should be turning out at present at least twice the number of graduates now being prepared in her teacher-training institutions.

Salary Levels

One of the most important factors in the present failure to secure an adequate number of candidates for training as teachers who will devote the time and money needed to obtain sufficient educational experience to qualify under even reasonable standards for positions in the public schools is the very low salary level that prevails. In 1927-28 the average annual salary of elementary teachers was \$634 for white and \$434 for colored teachers. The average for white high-school teachers was \$1,236 and for colored \$696.¹

Few people of the highly capable and intellectual type needed for teaching will find any incentive in such salaries to induce them to make long and arduous preparation for the work. Those who enter will do so either because they are of relatively low intellectual ability and of backward social standards or in spite of the salary rather than because of it. Moreover, these average salaries do not tell the whole story. In one-fourth of the counties of Arkansas the average annual salary of elementary women teachers is \$486. These teachers have little or no training, and it is not clear how they can save enough from such salaries to enable them to acquire training. In order to encourage a greater number of students to prepare for teaching as a life work a new salary schedule is imperative. But if salaries are raised to a level comparable to those in States where better educational standards prevail a new variable will be introduced into the situation. This new variable will be the tendency for trained teachers to migrate to Arkansas from States where an oversupply of teachers now exists. The influence of this immigration can not be determined; it will depend both upon the measures taken by other States to reduce their oversupply and upon the qualifications for certification set up by Arkansas.

¹ Biennial Report of State Superintendent of Public Instruction, 1927-28.

Standards of Teacher-Preparation

Insufficient numbers of teachers with the absolute minimum of training is not the most important deficiency of the Arkansas public schools. The present standard of training of the public-school staff falls far below the requirements of the United States as a whole and is entirely inadequate to serve as the basis for a modern school system.

The latest facts available concerning the educational qualifications of Arkansas teachers are those collected by J. R. Grant in 1924. There is no reason to believe that the percentages which prevailed then have materially changed.³

TABLE 9.—*Showing Percentages of Rural and City Teachers Having Certain Amounts of Educational Preparation*

Educational qualifications	Percentages		Educational qualifications	Percentages	
	Rural	City		Rural	City
1	2	3	1	2	3
Eighth grade graduate or less.....	19	1	Partial normal *.....	12	24
1-year high school.....	13	1	Normal graduate.....	4	18
2-year or 3-year high school.....	25	1	Partial college.....	5	18
Graduate 4-year high school.....	43	8	College graduate.....	4	30

* Refers to teachers who are graduates of an accredited high school.

Table 9 shows that 75 per cent of the rural teachers had no training beyond high school, and this training was in large part secured in high schools of Arkansas that were themselves of low standard. Even in the cities approximately one-third of the entire teaching staff had less training than is represented by graduation from a 2-year normal school, a standard that is considered inadequate for admission to teaching employment in all the progressive city school systems of the country. Further, of the 4,051 rural teachers with less than high-school training, 60 per cent were employed in 1-teacher schools, where they could not have the advantage of contact with better-trained teachers and of adequate continuous direction and supervision. In 1924-25 "four-fifths of all the new rural teachers were certificated by passing an examination on the common-school branches."⁴ No changes in requirements or in methods of certifying teachers have been made since the period which Mr. Grant's study covers that have changed in any large degree either the character of the teaching body already in service or of the qualifications for admission to the responsibilities of teaching. The operation of the

³ Grant, J. R. "Arkansas's teacher-training program," pp. 88-89.

⁴ Ibid.

State equalization fund will tend to revolutionize these conditions, but its influence will be slow unless additional funds are placed at its disposal, and impossible of realization unless higher institutions can furnish properly trained teachers in sufficient numbers.

That the preparation of the boys and girls of Arkansas for participation in the economic and social life of the State should be intrusted generally to teachers who have advanced educationally and culturally only slightly beyond the pupils whom they are called upon to instruct will tend to delay every aspect of the State's progress during at least another generation. Upon such a foundation can not be built a superstructure of higher education which will provide the young men and women of Arkansas with life opportunities comparable to those in other States. The youth of the State are thus condemned in large numbers to failure to develop their abilities and the State is doomed to those conditions of visionless leadership under which the people perish. It is essential that every means be adopted to provide for further training of the teachers now in service and that the standards for admission of new teachers be raised.

Raising the Standard of Teachers in Service

The most effective instruments and agencies for improving the character of the existing teaching body are: (1) Summer-school facilities; (2) extension opportunities; (3) the development of larger school units through the operation of the equalization fund; (4) the professional leadership of the State department of education.

Summer Schools for Teachers

At the present time the summer schools of the State higher institutions afford considerable opportunity to teachers in service to improve their training. Data were not available to show what part of the summer-school enrollment was made up of such teachers, but Table 10 compiled from registrars' reports for the summer schools of 1929 show that they are reaching a rather large number of students.

TABLE 10.—*Summer-school enrollments, 1929*¹

Institution	Men	Women	Total	Institution	Men	Women	Total
1	2	3	4	1	2	3	4
Jonesboro.....	115	320	435	Arkadelphia.....	73	133	206
Monticello.....	24	78	102	Conway.....			1,999
Magnolia.....	60	223	273	Fayetteville.....	264	643	897
Russellville.....	190	335	525				

¹ Registrar's report.

² Includes high-school enrollment. Distribution by sex not available.

Without doubt many of these enrollments are of students who are preparing for their first teaching experience and of students who do not expect to teach, but the survey commission was assured by the officers of the institutions that the purpose of many was the renewal of teaching certificates and the improvement of themselves for teaching positions already obtained. It is difficult to see how, with the salaries that prevail in the State, many teachers could afford to take summer work in institutions very remote from their own homes or under conditions of living that would involve more than the absolute minimum of expense. The functions of local service that the junior colleges can render by providing summer work for teachers is, therefore, by no means one of their least important duties.

Extension Work for Teachers

The extension work of the State institutions is discussed in considerable detail in another portion of this report. It is the purpose here merely to commend the progress that has been made toward utilizing the resources of the public institutions in such fashion as to unify effort and to secure economy of extension operation. Extension instruction, both through class work for teachers and through correspondence lessons, should provide a most effective means of assisting teachers in service to develop higher academic standards. Neither method, however, can take the place of adequate supervision or of resident training which may bring teachers into contact with group life and with the standards of healthful living, of social conduct, of refinement, of intellectual interest, and of breadth of outlook that should distinguish institutions of higher learning. The survey commission urges most earnestly that the extension services of the State be developed to the highest point consistent with expenditures that will permit improvement of the material and cultural environment of the resident work of the university, teachers colleges, and junior institutions.

Leadership of the State Department of Education

It is necessary to consider carefully in connection with the improvement of teachers now in service the leadership of the State department of education. This leadership is so intimately related to problems that affect directly the standards for admission of new teachers and the better utilization of the resources of the State through more effective coordination of teacher-training facilities that these aspects of the problem will be grouped together in the discussion that follows.

The success of attempts to raise the standard of the public schools of Arkansas is absolutely dependent upon coordinated management

of the public schools and of the teacher-training program of the State. The improvement of the local public schools and of the preparation of teachers to serve in these schools are aspects of a single problem. The State can not expect to solve this problem unless it provides a single agency responsible for the entire public-school program and vested with sufficient dignity and authority to permit it to lead the public schools and to control the teacher-training facilities of the State in such fashion as to establish and to maintain essential relationships between them. The obvious single agency at the disposal of the State for this purpose and the one that is utilized to accomplish similar ends by other States that have made the most educational progress is the State department of public instruction.

This fact makes necessary considerable adjustment of the existing methods of control over the teacher-training institutions and of the duties and relationships of the department of public instruction. The following paragraphs will present the recommendations of the survey commission with reference to these matters and the considerations which lead it to these conclusions.

Teacher Certification

The social as well as the educational background of Arkansas teachers must be improved. The character of the teaching force in any public-school system is determined in large part by the qualifications required in order to obtain licenses to teach and by the administrative enforcement of these standards in a uniform and impartial manner. Standards under which individuals are now licensed to enter the public schools to shape the intellectual, physical, and spiritual development of the children of Arkansas are such as to turn over this sacred trust in many instances to persons almost as ignorant of the laws of mental growth and of physical health as are the pupils whom they instruct. This is evident from the facts already presented concerning the training of Arkansas teachers. The social background and experience of these teachers make them not models and leaders in living but examples of pitiable standards and attitudes of life. This is no condemnation of the teachers who are struggling under tremendous handicaps to maintain and to raise the level of education in Arkansas; it is a condemnation of the living and social conditions under which those who are trained receive their training in the teacher-training institutions of the State. The section of this report dealing with the educational plant of the higher institutions presents a picture of dark and inadequate toilet and bathing facilities; of crowded, dilapidated, and dangerous living quarters; of odorous kitchens and dining halls that possess few elements of beauty or other refining influence. The splendid young

people of the State whose aspirations and hopes lead them to the State institutions for the education of teachers are subjected to living conditions which tend to perpetuate crude and unhygienic ways of living among the future citizens of the State and Nation.

Marked improvement in the educational and social standards of the Arkansas teaching staff can not be expected under present conditions of licensing teachers. There are entirely too many standards of judgment possible under the present system. For example: (1) County certificates may be granted by examinations held by county superintendents; (2) special certificates in music, art, etc., may be granted by the county superintendent on a basis of credentials; (3) county certificates may be granted by any county superintendent upon the basis of a teacher's certificate valid for five years or longer in another State, or upon the basis of two or more years of college work in an institution approved by the State board of education; and (4) professional certificates are issued by the State board of education either by examination or upon submission of credentials. It is therefore apparent that at least 76 different individuals or groups are vested with certification authority.

Uniform enforcement of higher educational standards and of higher social standards for teachers is possible only when a single responsible agency determines and administers both the requirements for certification and the institutions that by the living conditions with which they surround their students, as well as by the work that they give the young people in the classroom, determine the kind of teachers that are available for certification. The survey commission therefore recommends that responsibility for certification requirements and the power of granting the right to teach in the public schools of the State be lodged exclusively in a State board of education acting through a professional State department of education.

No attempt will be made here to enter into all the intricacies of the proper certification procedure that should be followed, but the following principles should be stated in order that the people of the State may understand the implications of this recommendation and be prepared to support their agency of educational leadership if the State should see fit to adopt this recommendation.

(1) The qualifications of teachers for certificates should not be a matter for statutory provision. This is true because certification requirements in the interests of the schools as a whole are highly technical matters, and the management of their formulation and application must be such as to permit constant change in order to meet changing conditions. To prescribe by statute for detailed control of a developing educational situation would be as short-sighted

as to prescribe by statute for the treatment that the physician shall give his patient.

(2) Certification rules should be simple and easily administered.

(3) Certification rules, in justice to teachers now in service, should not be retroactive, but should require reasonable professional growth on the part of all who remain in teaching.

(4) There should be separate and distinct types of certificates for teachers, supervisors, principals, and superintendents, and differentiated certificates should be issued for different types of teaching positions.

(5) The first certificate granted a teacher should be provisional and subject to renewal only upon evidence of continued professional growth.

(6) Certification by examination should be discontinued at the earliest possible date.

(7) The State department should be empowered to issue, under adequate safeguards, special certificates to meet technical difficulties or emergencies.

(8) Certificates should be issued chiefly upon the basis of a definite amount of approved professional training with such consideration, as in the judgment of the State board of education, may seem wise for appropriate periods and forms of teaching experience.

(9) Standards of certification should be advanced as rapidly as the supply of trained teachers permits.

Control of Teacher Training

Subsequent chapters present in some detail conditions that show among the teacher-training institutions of the State wide diversity of standards of instruction and program, especially with reference to practice facilities, and great confusion of business management. The educational programs themselves are determined by demand based upon the judgment of relatively uninformed students rather than upon knowledge of the needs and plans of the State in maintenance of a state-wide program of public education. There is little coordination among the institutions.

Under present methods of control over the specialized teacher-training colleges, and the teacher-training work of the State junior colleges, discrepancies of practice, of facilities, of programs, and of management tend to be perpetuated and accentuated. It is, therefore, recommended by the commission that the present governing boards of the teachers colleges at Conway and at Arkadelphia be abolished and that these institutions be placed under the control of the State board of education. Inasmuch as the institution for negroes at Pine Bluff is primarily a teacher-training institution, it

is also recommended that the existing board be abolished and the control be lodged in the State board of education.

That this proposal is in accord with the best thought is evidenced by much of the literature of teacher training. The following quotation from E. P. Cubberley⁵ is in point:

In all but the smallest States a number of State teacher-training institutions will be needed. For many reasons a number of smaller schools properly located over a State will be better than one or two larger ones and will serve the State better. How many students each institution should try to care for is as yet an unsettled problem, varying somewhat with population density and other factors. The numbers should not be too large, however. The work of these different institutions should then be coordinated by the State board of education rather than left under the control of independent boards of trustees in order that a general State policy in teacher training may be most effectively and economically carried out. This body, acting on the advice of its commissioner of education, should determine the number of new teachers needed in the various lines of school work; authorize or assign different types of work to be done in the different institutions, with a view to utilizing facilities in the best manner possible; approve of the budget of expenditures for each institution; on recommendation of the commissioner of education, approve of the appointment of the executive head and chief members of the teaching staff for each school; and determine when any institution may be permitted to advance its course to three and four years of work, the conditions under which this may be done, and when and to what extent a full 4-year degree course may be offered by any institution.

Quite frequently common practice is an inadequate and dangerous standard for determining educational action since it may tend to lend the weight of authority to unprogressive conservatism and traditional survivals. However, it is interesting to note that with reference to control of teacher-training institutions practice is quite extensively in harmony with the best thought upon the matter. Thus in 13 States the same State agency that supervises elementary secondary education also controls the normal schools or teachers colleges. In 9 States the teacher-training institutions are controlled by a single board without other duties. In these instances control is not identified with that of the State board of education or of the State department of education although the State department may be charged with large responsibilities. To this number perhaps should be added also the 8 States in which single boards of control are established, separate from the board in charge of public education, which have charge of the State higher institutions including the teacher-training institutions. This tendency to secure greater or less unity through common control is further illustrated by the fact that only 9 States are without some form of common control of two or more institutions that are separated by considerable distance.

⁵ Cubberley, E. P. *State School Administration*, 1927. New York, Houghton Mifflin Co. pp. 611-612.

In placing her teacher-training institutions under one board, and that the State board of education, Arkansas would be following a

FIG. 4. ENROLLMENT BY RESIDENCE - ARKADELPHIA.

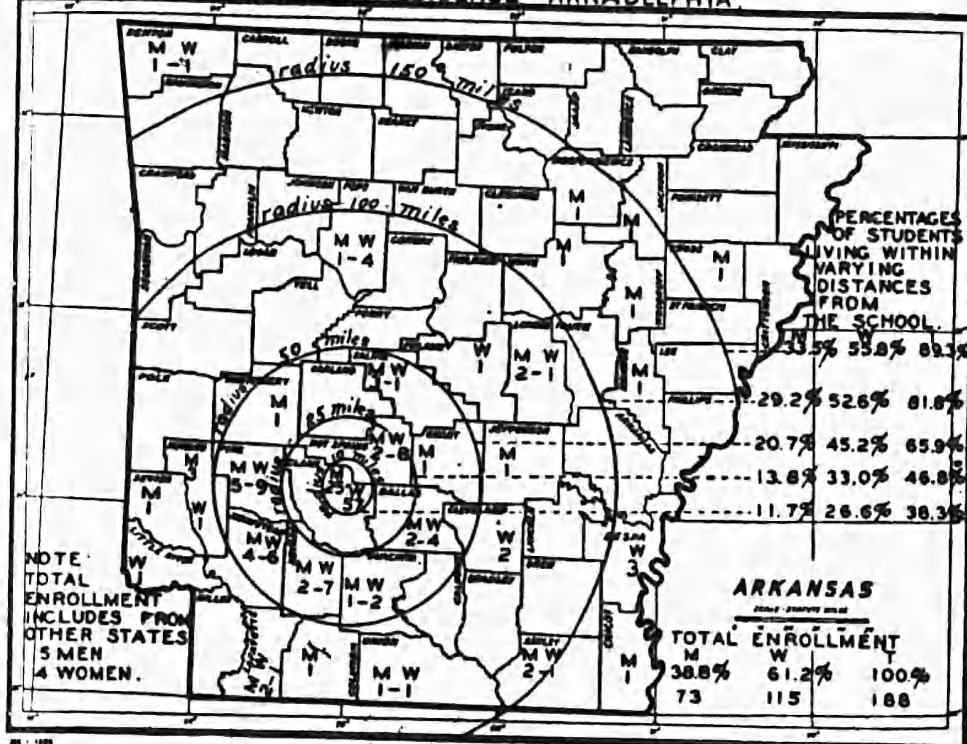
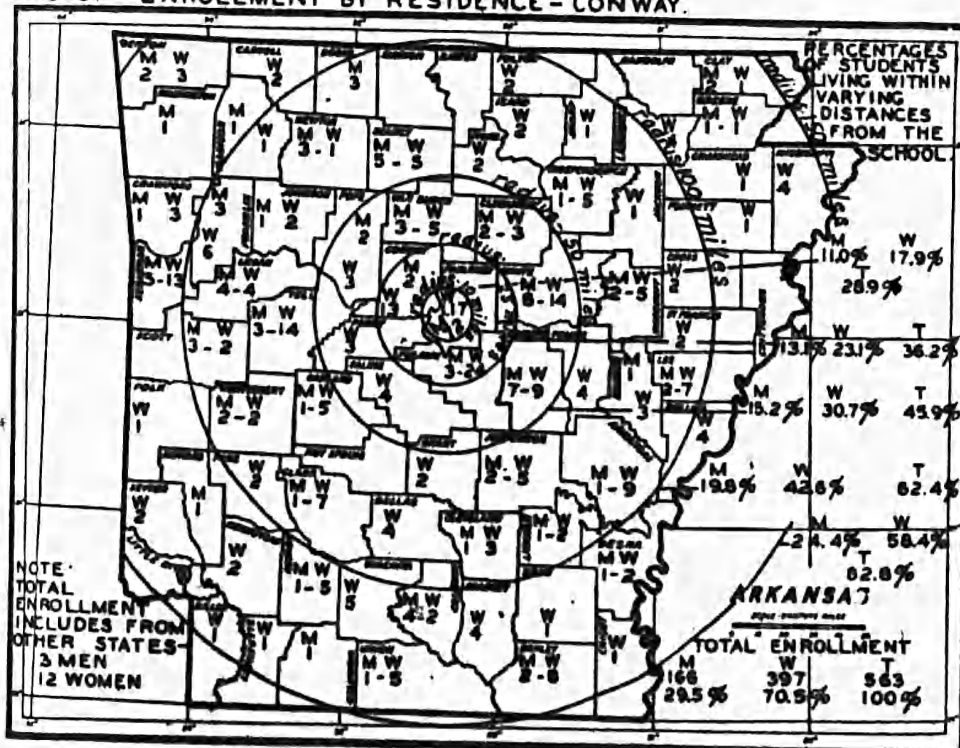


FIG. 5. ENROLLMENT BY RESIDENCE - CONWAY.



trend in practice which has been markedly developed in the past two decades by many States and which is generally conceded by those qualified to judge as the best practice.

Figure 4 shows Henderson State Teachers College to be still an undeveloped local institution, so far as the territory from which students are drawn is concerned. Conway, as Figure 5 shows, is truly State-wide with respect to territory served, but the number of students from any one county is far less than the number who will seek training for the teaching profession if local facilities are available.

A glance at Table 11 shows that the greatest single function during regular session of the four agricultural and mechanical schools, has been the training of teachers. Approximately 35 per cent of all students enrolled in the State-supported institutions of higher learning in Arkansas in the regular session 1928-29 were enrolled with teacher training as their major field of interest. Approximately 34 per cent of all students enrolled in the four agricultural and mechanical colleges in the year 1928-29 were enrolled in the major field of teacher training.

Institution at—

4 From registrars' reports.

Does not make distinction between arts and sciences and education.

For many years to come the State will be required to depend to a considerable degree upon the junior colleges at Magnolia, Jonesboro, and Monticello for the training of a number of new elementary teachers and for the further education of teachers already in service in the districts in which these institutions are located. The necessary dependence upon the junior college at Russellville is by no means clear, since it is located within easy reaching distance of the State teachers college at Conway and of the university at Fayetteville.

The difference in the costs of education and living in the junior colleges and the costs at the two State teachers' colleges make it advisable that teacher-training work be continued at the junior colleges at Jonesboro, Magnolia, and Monticello in order that opportunity for such training may be cheaply available to the boys and girls of their districts.⁶ It is, therefore, essential that the standards, practices, and programs of these institutions, in so far as they relate directly to teacher training, be subject to coordination with the work of the State teachers' colleges and the State program of public education. Accordingly the commission recommends that the teacher-training work of these State junior colleges be subject to the inspection and supervision of the State board of education in a more intimate and direct manner than is afforded by its control over certification of teachers. The State board should have authority to prescribe standards with reference to all teacher training offered by the institutions of the State. It is especially important that these standards describe and enforce the amounts and the conditions under which practice teaching is done, the nature of the training of prospective teachers, and the content of courses and curricula.

In order that the control of the State board of education may be real and effective it is recommended that it be responsible (1) for the preparation of the budgets of the three institutions under its control, namely, Conway, Arkadelphia, and Pine Bluff, and (2) for the teacher-training budgets of the junior colleges. These budgets should be submitted to the legislature by the board of education as a budget for the teacher-training program of the State. When appropriated in accordance with such requests, the board of education should have power to allocate the funds to the institutions under its control in accordance with institutional budgets approved by the board.

Annual Funds Should be Supplied for the Study of Educational Problems

It is also recommended that reserve or emergency funds not in excess of \$25,000 annually be made available to the State board of

⁶ If in the opinion of State authorities the institution at Russellville should be continued, the statement that follows should be applied to this junior college as well as the others.

education to conduct studies of educational problems in cooperation with the higher institutions of the State and to assist public higher institutions in the prosecution of enterprises or experiments directly related to the teacher-training program of the State. It is assumed that in certain instances these funds may be used profitably to supplement and encourage aspects of the teacher-training programs of the junior colleges which can not be properly conducted with funds directly available to the institutions.

A director of teacher-training in the State department.—Attention has already been called to the need for professional guidance of teacher-training activities of the State in order that coordination of programs and of procedures may be secured and all the teacher-training resources of the State be utilized as a single unit of power in the attacks upon the backward and unsatisfactory standards of public education. Continuous and concentrated attention to the problems of curriculum construction, to the character of instruction, and to adaptation of programs to changing social and economic conditions is necessary. The State superintendent of public instruction should, therefore, be supplied with an assistant whose sole duties should be those of professional assistance and advice to the teacher-training agencies in regard to these matters, and to the State superintendent of public instruction with reference to administrative action intended to improve the quality and usefulness of the teacher-training institutions.

A business manager in the State department.—Attention is called by another section of this report to certain wasteful and loose business procedures in the higher institutions of Arkansas. It is apparent that the full value of the money expended for higher education in the State can not be secured under such conditions. It is also apparent that the size of the teacher-training institutions and the volume of business done do not justify the employment at each of the institutions of an officer fitted by training and experience to exercise efficient business management and supervision. Reformation of budgeting, purchasing, accounting, and all the business procedures of the teacher-training institutions is essential. Common control over the teachers colleges and teacher-training programs by the board of education should provide business management so economically as to insure savings and efficiency in excess of the cost of such service. The commission recommends that a business officer be placed in the office of the State superintendent of public instruction who shall be charged with installing and maintaining a uniform and coordinated system of business management in the teacher-training institutions under the control of the State board of education.

In each institution the business functions exercised by various officers should be concentrated in the hands of resident assistants to

the business manager of the State department of public instruction. This proposal has the advantage, in addition to that of promoting economy and efficiency of expenditures, of releasing the presidents from such duties and permitting them to devote their time and energies to the educational problems of their institutions. If educational administration is to be of the type that should exist in these institutions it will require the full attention of the chief administrative officer. It is further recommended that the services of the State department business officer be made available to the State junior colleges for the accomplishment of the same purposes as those for which he is employed in connection with the distinctively teacher-training institutions. This service to the junior colleges is justified by their teacher-training functions and by the intimate relations between all the elements of public education in Arkansas. This is especially true in the case of the junior colleges which supplement the secondary school opportunities available in their districts.

The preceding discussion has been concerned primarily with proposals for a state-wide system of teacher-training integrated by means of common control by the State board of education and by means of educational and business direction by professional officers in the State department of public instruction. The unified system would include the State teachers colleges at Conway and Arkadelphia, the junior colleges at Monticello, Magnolia, and Jonesboro, and the institution for negroes at Pine Bluff. The teacher-training functions at the junior colleges should at least be supervised by the State department of public instruction even though the institutions themselves may not be brought under the control of the board of education, as is recommended by a subsequent chapter of this report.

The State Superintendent Should Be Selected by the State Board of Education

The recommendations of the survey commission would place additional responsibilities upon the State board of education. In addition to its present duties it would be required to administer all teacher certification in the State, to exercise control over the entire teacher-training program, and to supervise the financial and business management of the entire system. The State superintendent of public instruction is the administrative and advisory officer of the State board of education and responsible to it for the execution of educational policies. His position and responsibilities are such, therefore, that it is highly desirable that he be a competent, trained, professional educator not subject to political influences. Men with the educational and personal qualifications essential to this high office should not be subjected to the necessity of participating in political campaigns and in the bargaining and vote-getting expe-

dients associated with electioneering. The additional duties that would be imposed upon the State superintendent of public instruction by the recommendations of the survey commission serve to emphasize the fact that this officer should be free to devote his entire time to the important professional task of service to the schools of the State. He can not do this when his own position and the success of his school policies are so interwoven that he must constantly consider the possible effect of administrative action upon his chances of reelection. The survey commission strongly recommends, therefore, that the State superintendent of public instruction be selected and employed by the State board of education under conditions of contract that insure reasonable continuity and permanence of tenure during effective service. This is the practice in States distinguished by the excellence of their school systems and by the high character of their school administration. On this point Cubberley says: "The most serious burden under which the office (of State superintendent of public instruction) still labors * * * in nearly three-fourths of our States is that of partisan nomination and election."

Almost without exception the better schoolmen shun a position so frankly political in nature because (1) it offers no possibility for a career, and (2) the salary under political domination is usually much less than the better schoolmen can command in the city principalships and superintendencies of the State. "Only one elected superintendent exceeded \$5,000 as late as 1922, while but one appointed superintendent was paid less than \$5,000."

It is also recommended that the salary of the State superintendent of public instruction be fixed by the State board of education and that it be made commensurate with his responsibilities and with the standards of pay of similar chief school officers in other States.

Functions of the University

Thus far in the discussion of teacher training in the State little emphasis has been given to the position and functions of the university. Proper coordination between the teachers colleges and the school of education at the university should under normal conditions have resulted in the first two placing major emphasis upon the training of elementary teachers and the last placing major emphasis upon the training of high-school teachers. In all probability, under a plan of close cooperation over a period of years, with all institutions seeking the best interests of the State as a whole, the field of the teachers colleges and the teacher-training departments of junior colleges would have become almost exclusively that of training elementary

* Cubberley, E. P. State School Administration. New York, Houghton Mifflin Co., 1927. p. 276.

teachers and the field of the college of education of the university, almost exclusively that of training high-school teachers, supervisors, principals, and superintendents, and that of conducting educational research. However, such cooperation has not resulted. Without the leadership of a professional State department of education possessing adequate authority no such division of function has taken place; probably past and passing conditions in Arkansas educationally and economically would have made it impossible in view of local demands both for training opportunities and for cheap teachers. The problem of coordination among higher institutions in the preparation of high-school teachers, supervisors, and officers has, therefore, become most difficult.

In 1927-28 of the 10,509 teaching positions for white teachers only 16.5 per cent were high-school positions. Yet of the teachers prepared by the university and the other State teacher-training agencies in 1928-29 almost 47 per cent were high-school teachers, including grades 7 to 12. The university prepared only about 18 per cent of the high-school teachers whose training was completed while the normal schools and junior colleges prepared 82 per cent. On the other hand, there were 8,768 elementary school positions in the State in 1927-28, 83.5 per cent of the total number of positions; yet only 53 per cent of the students prepared in the teacher-training institutions for elementary positions. It is fairly obvious that the university is not carrying the burden of preparing the secondary teachers of the State and that a very large part of the efforts of the teachers colleges are directed to the training of such teachers. As in other States, the 4-year teachers colleges tend to emphasize high-school teacher training at the expense of elementary teachers. In the face of the accomplished facts the commission carefully considered the alternative course that would insure an adequate supply of well-trained elementary teachers and secure for the State a sufficient number of well-prepared high-school teachers. Several possibilities presented themselves:

- (1) The suggestion was made that the teachers colleges be restricted to the preparation of elementary and junior high-school teachers while to the university be assigned the training of all senior high-school teachers and high-school principals. This proposal was rejected by the commission because the facilities of the university could not be expanded sufficiently in a short period to meet the demand and because the location of the university makes contact with the school men and more progressive school systems of the State very difficult.

- (2) The commission considered recommending that the major burden of training elementary school-teachers (grades 1-6) upon a 2-year level be cared for by the junior colleges at Jonesboro, Mag-

nolia, and Monticello, while the 4-year training of elementary and of junior to senior high-school teachers should be assigned to the teachers colleges with the university emphasizing the training of a very limited number of high-school teachers and of all principals, superintendents, and supervisors. This proposal was rejected because the university has facilities superior to those found elsewhere in the State for the training of high-school teachers in subject matter and for surrounding prospective teachers with the atmosphere of intellectual interest that should constitute a large element of such training. Further, it seems highly improbable that the teachers colleges will in the immediate future be able to eliminate the demand for the 2-year normal-school course and thus escape from the "trade school" atmosphere in which the preparation of high-school teachers can not thrive.

Careful consideration led the commission to the following conclusions:

(1) The research abilities of the education staff of the university should be utilized in the interest of the entire State. This may best be done in cooperation with the State department of education and in conjunction with other teacher-training institutions. Research and experimental work in elementary and junior high-school education may well be carried on by the university in the training schools of the teachers' colleges and junior institutions. Its own inadequate elementary training school should be abandoned, thus leaving to the other institutions the preparation of elementary teachers.

(2) The preparation of very high grade high-school teachers upon a 4-year level should be continued by the university and its master's degree work in education emphasized. The purpose would not be that of meeting the demand for high-school teachers but of selecting and preparing very highly qualified teachers for the positions of public-school leadership in the State. The standards maintained should be higher than any that the State can reasonably set up for certification for many years to come. As the educational standards of the State are raised, the commission has no doubt that there will be an urgent demand for such teachers and leaders.

(3) That the emphasis of junior colleges be upon the training of elementary teachers and upon summer school and extension service to junior high-school teachers already in service. The work of the institutions in the field of teacher training should be strictly confined to the 2-year normal course.

(4) That as rapidly as possible the teachers' colleges reduce enrollment in their 2-year normal-school courses and emphasize four years of training for elementary and junior high school teachers. Their major work would thus bear about the same relationship to the teacher-training work of the junior colleges as the university

work in education would bear to the teachers' college function in preparation of senior high school teachers. They would continue to prepare high-school teachers upon a constantly higher level until such time as the needs of the State clearly indicated that further distribution or more specific allocation of function is desirable.

The question of allocation of function, especially as concerns the part that the university should play, can not be settled with even approximate permanence until the State department of education obtains the resources to study with considerable care the whole series of problems related to supply and demand for teachers and is given sufficient control over certification and the agencies of teacher training to permit gradual adaptation of the program to the facts and objectives that develop from such study.

Chapter IV

Institutional Functions and Relations

Important as is the teacher-training function in all the public higher institutions of Arkansas, this is by no means the sole reason for the State's support of the colleges and of the university. Slightly more than 64 per cent of the students in Arkansas institutions are registered for purposes other than teacher training. No other single purpose enrolls as large a number as does the work in preparation for teaching, and it is probable that some of the students who are registered in other fields will teach for longer or shorter periods, but it is likely that the future leaders of the economic and social life of Arkansas will be found in larger numbers among the prospective lawyers, doctors, engineers, and business men who are now in training for these types of life work than will be developed from the students who plan to become teachers. Quite apart from the importance of these areas of endeavor in modern society, this judgment is confirmed by the fact that almost 67 per cent of the students in teacher training are young women, while only slightly over 18 per cent of those enrolled in other fields are women, although in these other fields is included arts and sciences in which women enroll in considerable numbers. In spite of the entry of women into industry and into practically all the occupations that men follow, they have not as yet established themselves and will probably not for a long time establish themselves in positions of outstanding leadership in as large proportions as do their brothers. Consideration of aspects of higher education other than teacher preparation is of prime importance.

Reference to Table 4 shows that in all of the fields of higher education Arkansas has a considerable deficit of students in training. The computations recorded by this table indicate that in liberal arts Arkansas institutions had in 1923 less than half the number of students that should have been enrolled if in proportion to population the State maintained the ratio of students in this field that prevailed in the entire United States. At that time upon the same basis of estimate Arkansas should have been educating seventeen times as many

graduate students, eleven times as many students for the various employments related to agriculture, three times as many engineers, and almost five times as many doctors, while in commerce and business, law, and pharmacy no students were reported, although in proportion to other States Arkansas should have been educating 460, 255, and 122 students, respectively, in these fields. It is true that these figures are somewhat out of date since Arkansas has been making considerable educational progress during the past eight years, nevertheless, the deficit should still be cause for concern to the people of Arkansas who look forward to making their State a progressive and socially desirable place in which to live and to invest capital. Assuming that the number of students of the United States as a whole in each of these areas of learning has not increased more rapidly than population, an assumption that is obviously not the case, and estimating the present student deficit in Arkansas upon the basis of enrollments in its higher institutions in 1928-29 with reference to standards of 1923, Arkansas should have, exclusive of teacher training, more than two and a half times as many students in its higher institutions as it had in 1928-29. While these estimates are admittedly not sufficiently reliable to serve as goals of achievement, they reflect the actual conditions with enough accuracy to justify emphasis upon the great task that awaits the higher institutions of the State.

The survey commission has already recorded its belief and the reasons for its conviction that progress toward the solution of the problem of attendance upon the higher institutions of Arkansas adequate to the demands of the State's economic and social development is very largely dependent upon accelerated and widespread development of the public schools. Acceptance of this judgment does not in any sense remove from the State responsibility for earnest effort to extend and to improve the work and opportunities offered by the university and the junior colleges in areas other than those of teacher training. As will be pointed out later this responsibility involves careful but important increases of expenditure for physical plant and salaries, but it also involves attention upon the part of public authority to the possibilities of securing more economical and effective service by means of greater coordination of expenditures and by means of clearer definition of institutional function. It is the purpose of this chapter to discuss some of the aspects of these problems that seem of urgent importance to the commission. This discussion will deal primarily with the functions and relationships of the junior colleges and of the university. Subsequent chapters will deal with certain uniform standards of procedure and practice that affect all the institutions.

Do the junior colleges still have an obligation to provide higher educational opportunities for families that are in extremely modest economic circumstances to send their sons and daughters to a local junior college supported largely by the State? The survey staff traveled more than 1,200 miles by automobile through every section of the State observing schoolhouses, farms, and farm buildings, animals and equipment, the villages and towns with their places of business, streets, and hotel accommodations, talking with the people whenever the opportunity offered. The general impression thus produced upon men who are intimately familiar with the country and towns of many States was not one of dire poverty nor of bursting prosperity. Yet such observation could not fail to convince the survey staff that many communities and even regions in Arkansas economically and socially need the aid of State-supported local institutions of higher education.

These impressions are confirmed by the facts concerning the distribution of the wealth of the State in relation to number of pupils enumerated. The situation is shown by Figure 2. The assessed valuation back of each child, aged 6 to 21, varies from \$312 in Van Buren County to \$2,302 in Pulaski County. Assuming property to be assessed at about one-fifth of its value, which is the case in Arkansas, the true wealth back of each child then varies from \$1,560 in Van Buren County to \$11,510 in Pulaski County.

The conclusion that local junior colleges are needed is further supported by an inquiry directed to the students of all the institutions of higher education in the State. Of 3,753 students replying, 1,871 said that they attended the college they do because it is near home or cheaper. (See Table 12.) One thousand and eighty-nine lived at home while going to college. (Table 13.) Five hundred and fifty-six spent less than \$200 per year; 904 spent less than \$300 per year; 1,115 spent less than \$350 per year. (Table 14.) Seven hundred and forty-nine earned all of their college expenses; 1,001 earned three-fourths or all of their expenses; 1,341 earned half, or more, of their expenses. (Table 9.) Tables 12, 13, 14, and 15 also give further data concerning reasons for attending college, where students room, what they spend, and portion of expenses earned by themselves.

Why come to college?



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TABLE 13.—*Extent to which students room at home, in dormitories, at fraternities, or clubs, or with private family*

Institution	Where do you room?											
	At home			College dormitory			Fraternity or club			Private family		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
Jonesboro.....	88	83	171	63	35	98	1		1	28	20	48
Monticello.....	23	26	49	104	78	182				4	6	10
Magnolia.....	19	40	59	170	128	298	2	1	3	12	7	19
Russellville.....	13	28	41	85	41	126				24	15	39
Arkadelphia.....	24	52	76	2	46	48	1		1	46	17	63
Conway.....	61	96	157	5	121	126	1		1	99	180	279
Fayetteville.....	210	248	458	137	76	213	243	143	386	418	119	537
Pine Bluff.....	21	57	78	65	78	143				30	13	43
Total.....	459	630	1,089	631	603	1,234	248	144	392	661	377	1,038

STATE-SUPPORTED HIGHER INSTITUTIONS

TABLE 14.—Annual amounts expended by students

Spending	Institutions																	
	Jonesboro		Monticello		Magnolia		Russellville		Arkadelphia		Conway		Fayetteville		Pine Bluff		Total	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
More than \$1,000.....	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	3	6	
\$500-\$999.....	0	0	0	0	0	0	0	0	0	0	0	0	92	0	0	94	110	
\$300-\$499.....	1	0	0	0	0	0	0	0	0	0	0	0	63	0	0	67	40	
\$700-\$799.....	2	1	0	0	0	0	0	1	2	4	5	0	108	0	0	111	64	
\$800-\$899.....	3	3	0	0	0	0	0	2	5	3	4	4	170	0	1	178	96	
\$900-\$999.....	19	14	1	1	1	0	1	16	12	4	20	213	45	0	3	254	405	
\$1,000-\$1,099.....	7	5	0	0	3	3	0	5	2	9	18	61	14	0	1	84	74	
\$1,100-\$1,199.....	29	4	0	0	2	2	0	3	10	9	23	60	34	0	0	104	104	
\$1,200-\$1,299.....	23	7	1	14	17	18	2	8	5	27	46	87	9	1	1	102	87	
\$1,300-\$1,399.....	14	6	4	43	48	55	9	6	7	46	131	36	34	4	3	171	211	
\$1,400-\$1,499.....	13	7	30	55	56	27	20	2	8	15	40	25	14	12	11	166	178	
\$1,500-\$1,599.....	14	11	58	56	51	54	16	3	10	8	11	27	26	35	20	255	170	
\$1,600-\$1,699.....	15	20	16	23	20	25	7	6	6	11	20	13	20	26	31	110	151	
Less than \$1,600.....	40	60	26	23	10	13	24	20	38	34	84	50	77	38	77	231	405	
Total.....	180	138	131	110	203	176	122	84	73	115	166	197	503	115	148	1,930	1,689	

Institution	Median		Institution	Median	
	Men	Women		Men	Women
Jonesboro.....	\$328.80	\$172.50	Arkadelphia.....	\$359.38	\$271.88
Monticello.....	220.21	218.00	Conway.....	317.40	316.60
Magnolia.....	263.95	240.18	Fayetteville.....	582.40	522.22
Russellville.....	237.72	237.60	Pine Bluff.....	187.50	(¹)

¹ 61 men and 18 women marked "omlt."
² Less than \$150

TABLE 15.—Portion of college expenses earned by students

What part of your college expenses do you earn yourself?																		
Institution	All			Three-fourths			One-half			One-fourth			Little			None		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Jonesboro.....	46	9	55	16	4	20	13	5	18	21	5	26	43	22	65	41	98	134
Monticello.....	44	15	59	17	9	26	14	6	20	8	9	17	24	22	46	24	49	73
Magnolia.....	90	12	102	29	6	35	24	20	44	11	11	22	21	9	30	28	18	46
Russellville.....	51	16	67	9	4	13	12	6	18	16	7	23	22	10	32	12	41	53
Arkadelphia.....	24	12	36	8	8	16	9	5	14	9	9	18	6	11	17	17	70	87
Conway.....	87	100	187	9	16	25	15	28	43	8	9	17	15	18	33	32	226	268
Fayetteville.....	179	31	210	78	14	92	112	24	136	124	17	141	230	49	279	225	367	592
Pine Bluff.....	22	11	33	16	9	25	36	11	47	13	12	25	16	16	26	19	89	108
Total.....	543	206	749	182	70	252	235	105	340	210	79	289	371	157	528	398	1,063	1,361

The answer to the question as to whether the State needs local higher institutions where at least part of a college education may be cheaply obtained is obviously in the affirmative. That three of the junior colleges, Jonesboro, Monticello, and Magnolia, are well located for this purpose is equally obvious.

The amount of higher education to be provided locally must depend upon the State's financial ability and upon the needs of the public schools.—How much college education should thus be provided is a question that very clearly requires consideration. This can be answered only in terms of the ability of the State to support higher education under present conditions and the ability of the local communities and the State together to provide public schools upon which a higher educational system may be reared.

The conclusion that there is a continuing need for local institutions of junior college character by no means answers adequately the question of whether changing economic and social conditions now make and will continue to make it a primary function of the junior colleges to prepare students for admission to the third year of the university or other 4-year college; in other words, to act as a selective medium to aid students and parents in determining whether education beyond the junior college level should be undertaken. That the junior college has such a function is generally accepted. This opinion is supported by the fact that failures are heaviest in 4-year institutions during the first two years.

Table 16, which follows, shows the number of students actually eliminated from the freshman class of 1924-25 at the University of Arkansas. Five hundred and fifty-nine freshmen entered. By the end of the first year 243, or 43.4 per cent, had disappeared; by the end of the second year 111, or 20 per cent, more of the original number were gone; by the end of the third year 62, or 11 per cent more; by the end of the fourth year, 48, or 8.5 per cent more. Only 95, or 17.1 per cent, remained at the end of the fourth year, and but 72 of these received degrees. Most of them failed in one or another sense of the word. In most cases the work was either beyond their academic or economic powers, or not adapted to their needs. In either event a large proportion of these students left the university with a sense of having failed.

Clearly it would have been economical for the individual, his family, the university, and the State, if many of those who failed had attended local institutions. But they should not have failed if the local courses were adapted to their needs and abilities. The greatest loss is not the apparent financial loss but the immeasurable loss of that intangible something which goes out of the spirits of men and women when failure enters their lives. The whole later tenor and

trend of the existence of these students has been disturbed and redirected by this most bitter of all experiences. These same students, given courses adapted to their abilities and needs in local institutions, might have made great successes in certain fields with tremendous advantage to themselves, their families, and the State of Arkansas. The conservation of human resources is a matter of primary concern to any State, and of vital concern to Arkansas.

TABLE 16.—*The effect of four years upon the size of the freshman class of 1924-25—University of Arkansas*¹

Year	Number remaining	Number dropping out during year	Per cent dropping out during year
1	2	3	4
1924-25			
1925-26	559	243	43.4
1926-27	316	111	20.0
1927-28	205	62	11.0
1928-29	143	48	8.5
	195		
Total		464	82.9

¹ From the registrar's report.

² 72 of these received degrees.

The State Must Study Its Vocational Needs

The preceding facts and inferences suggest that it would be extremely unfortunate in view of the economic condition of Arkansas if these junior institutions became merely selective agencies for the upper division of the university and other higher institutions. Their problem and function must also include provision of educational training of useful type to the limits of the capacities and resources of those who do not or can not profitably go to college longer than two years. The term "useful training" is employed in the sense of the practically vocational, in the sense of preparation for all those occupations of life, particularly life in Arkansas, which require training beyond that afforded by vocational high schools and less than that given by the 4-year college; and in the sense of active appreciation of the individual's duties and relationships to community, government, sanitation, public education, and business ethics.

It appears clear to the survey commission that the junior colleges of the State would be failing to serve the basic purposes for which they were created if preparation for senior college attendance should be regarded as the exclusive or even as the predominant objective of these institutions. They must perform this function, to be sure, and pass on to the senior college without educational handicap those stu-

dents who have the ambition, the ability, and the means to profit from such immediate further educational experience; they should, however, direct the major portion of their energies to the education of students who look forward to a maximum of two years of college work prior to entry upon some form of gainful occupation. The programs of these schools should, therefore, be so constructed as to provide preparation for some form of gainful occupation and for intelligent and socially beneficial participation in the community life of the State and Nation.

The evolution of high-school objectives and curricula throughout the Nation in the past two decades furnishes an interesting precedent and parallel, and points the way to the objectives which should prevail to-day in the junior colleges of Arkansas. Twenty years ago it was assumed that each boy or girl who entered high school must of course take work which would prepare him for college, without regard to his desires or his mental and financial ability. Therefore, but one curriculum, the college preparatory, was necessary. To-day the high school is regarded as a "finishing school" for the great majority of students. It has become a "people's college" preparing great numbers for direct entrance to the affairs of practical life.

It is true that some of those who thus definitely prepare to earn their own livelihood will, after a period of employment and saving, desire to secure further education. Perspectives and ambitions are changed and latent abilities are frequently released by such practical experience and responsibility. It is probable that in many instances such junior college graduates will find that their former training for immediately gainful employment has not entirely prepared them to enter at once and without handicap upon educational work which has a very different objective. This is one of the results of modest resources and of our characteristically American and cherished freedom to change the channels of our lives when the desire or the opportunity develops. The disadvantages of entering upon a new kind of endeavor after prior preparation for something very different are more than offset by the economic and social power gained by early acquisition of ability to pursue a gainful occupation. Without such means of increased earning power the money would not be available for further education and the effective desire for still greater accomplishment, whether economic or social, would be developed in but few instances. Our public institutions should, and do, reduce to the minimum the handicap that is imposed by such changes of life plan or by the need to interrupt the continuity of education in order to earn a living. That the handicap should be removed entirely is impossible. A plan of education that affords training for gainful occupation early in life gives opportunities for more persons in a

State like Arkansas to carry on further than will one that adheres dogmatically to the theory of continuous education for the individual from kindergarten to university in the face of practical conditions which make such continuity impossible. It is earnestly recommended, therefore, that the State junior colleges of Arkansas emphasize the objectives of gainful occupation and general education upon what is now a 2-year college level.

Occupational Studies Needed in Arkansas

In order to establish in the junior colleges completion or terminal courses which shall prepare the graduates to enter at once certain professional and business occupations, provision must be made for obtaining and using information not now available. In only one section of the State, that in the southwest, did the survey commission find any hearty acceptance of vocational objectives supplemented by a scientific and careful attempt to determine in cooperation with competent aid from the university what occupations in the district offered opportunity for and demanded such training. Careful study of the situation under competent direction should be made on a state-wide scale. This may well receive cooperative support and be carried on cooperatively by all the institutions of the State. The State owes it to itself and to the institutional program of education that it should provide the modest special fund that would be required for this purpose.

In the first place, it should be obvious that the primary factor in determining what training should be offered upon the intermediate level by the junior colleges must be the occupations which offer opportunity for employment in Arkansas. Even general knowledge of the State, and especially of those portions of the State in which the junior colleges are located, indicates that these employments are more limited in number and variety than is the case in highly industrialized and commercialized regions. But the industries and business enterprises of Arkansas are developing. Large scale and specialized farming are common and offer certain opportunities of the kind referred to. The standards for teachers are still and for many years will continue to be such that training for this vocation upon a 2-year college level will offer excellent opportunity for employment in positions better than the average in rural communities and the smaller towns. The needs, requirements, and opportunities in other occupations and professions are not so obvious. Therefore studies should be made, and kept up to date, to show the demand likely to exist for graduates of the junior colleges in all fields—business, commercial, professional, etc. The survey committee was informed that a field or publicity man is now employed by three

of the junior colleges to make a study of the opportunities for commercial employment. If the function of this representative is serious study of this problem and not merely that of institutional promotion, the project should be encouraged by State support and the cooperation of the university.

Curricula Should Be Built from Data of Occupational Analyses

In addition to determining what the specific demands are in Arkansas for such intermediate training it will be necessary that the institutions study carefully, by means of analysis of the occupations themselves and by collection of information regarding training offered elsewhere for similar occupations, the kinds of curricula that they should give in order to accomplish the vocational objectives thus determined. Such courses offered by the junior colleges should be planned in close cooperation with the State department of education and the teachers colleges of the State and should conform to the standards and practices that are regarded as desirable by professional educators throughout the United States. A permanent committee on curricula, consisting of representatives from the faculties of all the institutions, should collaborate with the State department in the development and revision of courses of study.

Knowledge of opportunities in Arkansas and development of curricula designed specifically to provide training for these employments will fail to accomplish the purposes desired, however, unless more complete knowledge than is now secured of the abilities, aptitudes, and ambitions of the students to be trained is systematically collected, interpreted, and used as a means of educational and vocational guidance. Means of testing abilities and aptitudes have been highly developed in recent years. They are valuable instruments in competent hands. When used with other detailed personnel information, test scores are a positive aid in the task of helping students to select the educational preparation which will direct their efforts toward objectives that are attainable.

In further amplification of this point with reference to Arkansas, it may be stated that in 1925 the Association of Arkansas Colleges adopted a regulation to be in force for a period of four years during which time applicants over 21 years of age might be admitted by passing (1) the Otis group intelligence scale, advanced examination, Form A or B, or (2) the Terman group test, with a required score of 140. This was a step in the right direction. It is a good plan to measure students for academic ability, but the measurement should not be limited to special students. Also it should be said that there are at present in existence much better means of measuring the academic ability of college students than those now used in Arkansas. It

is recommended that a new committee of the Association of Arkansas Colleges, or some other qualified committee, be appointed to investigate the variety of tests and measurements now available and select the test that seems best for measuring academic ability. Only one test of academic ability should be adopted for a given period of years since the use of different tests in the same year, one with one student, another with another student, tends toward confusion and creates the possibility of error in transmuting or recording scores.

It is also recommended that the committee investigate tests now available for measuring aptitudes other than academic ability, such as clerical aptitude, mechanical aptitude, etc., and consider the feasibility and advisability of administering these tests to all students.

In the third place it is recommended that the committee make a careful study of teacher ratings of students in such nonmeasurable traits as honesty, reliability, cooperation, self-control, etc. Such objective rating scales are used now by progressive schools to secure important personal data not otherwise available.

The results (1) of tests of academic ability, (2) of tests of various other aptitudes, and (3) of personnel ratings should be available for all students who are enrolled in the colleges or the university, not merely for those over 21 years of age. Furthermore, these data should find a place on the permanent record card along with (4) the student's participation as officer or member in extracurricular organizations, and (5) the student's physical record, all being at least as important to the future success and for the guidance of the student as his scholastic grades.

In the above respects the permanent records of all institutions of higher learning in Arkansas are inadequate. The permanent records are also inadequate in that the following important information in most schools does not appear: (1) Records of discipline; (2) definition of standing required for graduation; (3) definition of a credit; (4) explanation of marking system.

These items are not omitted from all permanent records but the omission is sufficiently general to justify the statement. As the result of a recent revision, Magnolia has the most complete permanent record.

Since permanent records are, as their name indicates, records for all time, it should be perfectly clear that the mere recording of a mark, or a grade, or credit is insufficient. Ten, 20, or 50 years from now these records should have value. But they will be meaningless if the permanent record card carries no definitions or explanations of the credits and marking system used.

The foregoing recommendations indicate the need for the development of a new permanent record card, uniform for all State-sup-

ported institutions of higher learning in Arkansas and so constructed as to carry in convenient and available form the suggested additions to the scholastic records and other data now carried. Not only should the institutions of higher learning maintain such additional personnel records as have been suggested but similar records should be kept by elementary and secondary schools and transmitted in duplicate to the college or employer. One of the first steps, therefore, in the conservation of the human resources of Arkansas is a better system of student accounting.

Upon the basis of such careful studies of the individual student as have been suggested may be built an efficient placement work. As an adjunct or corollary to an intelligent attack upon the problem of furnishing (1) immediately practical education upon an intermediate level, and (2) guidance to boys and girls who come to them for educational aid, the colleges may well organize a systematic cooperative placement service. Such a service might easily become one of the elements of institutional activity most useful to the industrial and business life of the State to which employers would look for a class of intelligent and dependable employees now most difficult to obtain.

Functions of the University

The functions of the University of Arkansas may be defined: (1) In terms of responsibility for various subject-matter fields, such as agriculture, engineering, law, medicine; (2) in terms of responsibility for graduate and research work; (3) in terms of responsibility for leadership in establishing high standards of educational ideals in the State; and (4) in terms of responsibility for leadership in the institutional organization of the educational agencies of the State.

Attention has already been called by this chapter to the inadequate numbers of students in training for certain fields and occupations in Arkansas other than that of teaching. These fields upon the senior college or upper division level are exclusively those of the university. It is, therefore, desirable to consider briefly the service that the university renders in these areas.

Mention has been made in Chapter II of the service that the university renders to the agricultural industry of the State. More specific description of this service substantiates the conclusion previously reached that the change in the character of agricultural education that has taken place throughout the country has by no means in Arkansas made the university of less importance to the agricultural interests of the State.

In the first place the agricultural college of the university carries on experiments and investigations for the purpose of discovering and applying scientific facts of direct value to farm producers and

business men. The University of Arkansas Agricultural Experiment Station occupies a respected place among the agricultural experiment stations of the United States, and has accomplished more of direct money value for the industry than it could have accomplished by training five times as many dirt farmers as it has. For instance, to choose but three examples, the experiment station has developed a variety of cotton known as Arkansas Rowden 40. This cotton is adapted to a wide range of soils; it withstands considerable wet weather and also extreme drought; it resists rust and wilt; it is productive, grades well, and is rapidly picked; it produces a fiber always in demand on the market. It is worth millions of dollars per year to Arkansas farmers. The department of entomology has developed a plan known as "spot dusting" for controlling the boll weevil. The plan is generally adopted by farmers and saves hundreds of thousands of dollars annually. The effects of various fertilizers upon the different fruit crops have been studied and recommendations made that lead to greatly increased yields. Not only has the agricultural industry of every section of the State profited by these investigations but bankers, manufacturers, merchants, and professional men have profited from the better credits that have resulted from the increased buying power of agricultural producers and from the higher standards of living that have been made possible.

In the second place, the university college of agriculture maintains in cooperation with the Federal Government and the local communities of the State an agricultural extension service designed to interpret the results of experiment station work in terms of practical use in the home fields of the farmers of the State. Valuable practices and discoveries in agriculture and home economics are thus carried to the very door of the farmer. This service requires no going away to school; it is available directly in 63 counties of Arkansas.

In the third place, the university college of agriculture is constantly in its undergraduate work training its students to deal with the highly technical and scientific problems involved in studies of soils, of the value of foods and feedstuffs, fertilizers, and spray materials; studies of farm machinery, farm buildings, and farm motive power; of farm crops, experiments in the management of soils; studies in the feeding, breeding, and management of farm animals; studies of the causes and character of animal diseases and the means of combating them; studies of insects injurious to agriculture and methods of extermination; experiments in fruit growing and vegetable gardening; studies of plant diseases and methods of combating them; economic and social studies of farms and farm homes in Arkansas; inspection for contagious diseases of animals and for eradication of the cattle tick. These are practical problems

that are involved in but are of far wider import than the mechanics of small farm operation.

For work in commerce and business, in law, and to a lesser extent in engineering, the university is poorly located, since its isolation from the business, legal, and manufacturing centers of the State make difficult intimate contact with these phases of the State's economic and social activity. Educational thought is increasingly emphasizing such contacts as desirable in university work. Unless the northwest section of the State develops to an extraordinary extent, it is probable that the disadvantages of university isolation for training in these fields will become increasingly great. As the State itself develops a higher and more intensive industrial life in other regions the tendency will be to demand that new and more convenient means of education in these fields be provided. It becomes essential, therefore, in view of the investment in the university at Fayetteville, that the State provide facilities and support which will enable the institution to counteract this disadvantage by means of its outstanding teachers and investigators and by the excellence of its material equipment.

The medical school of the university is located at Little Rock where hospital and clinical facilities are available. This fact and the ability and devotion of its staff are its chief assets. Although it is rated by the American Medical Association as a Class A medical college, the survey commission was assured by competent authority that it retains this rating only by virtue of the keen sense of need in Arkansas for medical and health service that is felt by the authorities of the American Medical Association. After inspection of its facilities the survey commission needed no such assurance to convince it that only the most liberal and generous interpretation of standards for medical schools could permit its continuance under present conditions. Housed in the old State Capitol which has in practically no respect been remodeled to adapt it to the purposes of a medical school, rooms are heated by stoves, laboratories and classrooms are dark and ill adapted to scientific work, plumbing is a makeshift substitute, floors, walls, and furniture are battered and insanitary, rooms are inconveniently arranged, and the library quarters are so small and inadequate that readers must work in shifts and the valuable books must be subjected to risks of loss that are inexcusable. The clinic is located in another building in another part of the city, but conditions here where some of the most essential work of a medical college must be carried on are even more shocking. The building in which the clinic is housed seems to be an old office or business structure abandoned to the medical school because of its dilapidation and the movement of business to another quarter of the city. Wooden partitions, poor plumbing and heating arrangements, pathetic equipment give a

sense of desolation, poverty, and neglect that would in the slums of a large city excite the indignation of charity workers and the action of legal authorities. The survey commission marvelled that men of the training and ability that characterize the staff of the medical school would and could continue to carry on under the adverse conditions in which they work.

The State's neglect of its medical school is a blot upon Arkansas and a menace to American standards of health. The commission is of the opinion that the leniency of the American Medical Association in rating the institution as it does is a mistaken kindness that tends to perpetuate conditions that it would not tolerate in any other State and that would not be tolerated by any other State with which the commission is familiar. The commission challenges any 100 leading men and women of Arkansas to visit and inspect the medical college under normal conditions and not come away with shame and indignation that their State is guilty of permitting such conditions in the institution that is training the men who will be called upon to bring their children into the world, to protect, cure, and heal their loved ones, to set standards of health and sanitation for the entire State. The responsibility of the university for the character of its medical school is discussed in a subsequent paragraph, but the fundamental responsibility remains upon the social indifference and ignorance of the people of the State and of the legislators chosen to represent them. Are there not men and women in Arkansas who will take it upon themselves to investigate and to rouse public authority and private wealth to the immediate necessity for action?

Mention has been made in some detail of the research activities of the university in connection with the agricultural industry. This research is supported in part by the Federal Government. Anyone who knows anything of the history of agricultural development in the United States and in Arkansas can not fail to recognize the enormous contribution to agricultural production that has been made through the work of the agricultural experiment stations. New and improved crops have been developed. Livestock has been improved and protected from disease. Pests have been eliminated or controlled. New uses have been discovered for old products. Quite generally in all States the contribution to the economic prosperity and the material development made by research in agriculture is understood and appreciated.

The money invested in agricultural research repays the original investment a thousandfold. It is curious that the value of research, values in terms of cash returns, to say nothing of the profits in terms of human comfort and happiness, have not been as fully or as commonly recognized by State universities in other fields of investigation.

Arkansas is a State that does not abound in wealth and variety of natural resources. Those that exist have not been fully developed. The commercial and industrial possibilities of the State are not yet realized. The State can make no investment that will make such large returns in greater wealth as will liberal provision for research in fields other than those of agriculture. Research in health and sanitation that adds but one more productive day each year to the lives of the people of the State will increase the wealth of the State by millions of dollars annually. Research in business methods that save merchants of the State only 1 per cent of their yearly cost of doing business will make the difference between prosperity and poverty. Research in engineering that discovers but one additional means of utilizing the clays of the State or that saves a fraction of the fuel bill of the State means the difference between abundance and penury. Discovery of gold, diamonds, or oil is more spectacular, but the invention of a single machine that enables one man to do the work of three may mean more ultimate usable wealth than is returned by all the oil wells and gold mines of any State in the Union. These things come through investigation and research.

It is to the university that the State must look for the development of a program of research that will do more for the prosperity of Arkansas than any other single available or prospective source of material gain. Only at the university may be found or assembled the men who have the training and incentive to prosecute research of the kind that will best serve the State. In the past the university research program has been restricted and starved by insufficient funds and lack of appreciation of the fundamental importance of investigation. The commission earnestly urges that as rapidly as the present resources of the State permit the competent men on the university staff be granted aid to develop research programs and that the university be encouraged to add to its staff more physical and social scientists who are prepared to carry on and to direct research in fields that will add to the resources of Arkansas.

But support of research by men already trained elsewhere is only a part of the problem and one means of attack. Well-trained research men are in demand elsewhere and hard to find. The State should afford lifetime opportunities for its more brilliant young people to acquire congenial and useful occupations and at the same time insure to the State its own staff of research workers to delve into the unsolved problems that affect Arkansas life by providing funds in liberal quantity to the university to develop graduate study. Research workers are developed under modern conditions only through the training and guidance that they receive in the graduate schools of our universities. At present, as has already been shown

the number of students preparing in Arkansas for productive careers as students and scholars is woefully deficient. The university can not develop or afford graduate opportunities that should be available through the highly competent scientists that are now on its staff because its resources do not permit their release to any large extent from the undergraduate and elementary teaching that they must carry on. More money should be provided which will enable the university to increase its staff so as to release at least part of the time of able members for the direction of graduate work.

Further, some of the most capable and brilliant students come from families of relative poverty; they are compelled to make their own way while they secure an education. Institutions in other States provide scholarships and fellowships in generous amounts for such students. They draw no State lines when they discover a student who gives promise of becoming an outstanding research worker. Many of the institutions that lead in training for research are located in populous centers, where even without institutional grants of financial aid the ambitious student may secure relatively easy employment at high rates that enable him to pursue his scholarly ambitions. The best brains among the young people of the State are being drawn away from Arkansas by both these inducements offered elsewhere—generous fellowships and remunerative part-time employment. They do not return to Arkansas. Their interests and opportunities are established in other communities. The State can not afford to do nothing to stem this outflowing tide of its most scholarly young men and women. The university should be provided with funds for the aid of graduate students even more liberally than is the case of institutions where other opportunities are offered. It is a slow process to build up the atmosphere and the list of accomplishments that make a university a great graduate and research center. The University of Arkansas can not now or for a long time to come hope to rival the well-established graduate schools; it should provide opportunities for and retain many students for graduate work who by reason of ability are able and by reason of sentiment or material advantage are willing to associate themselves with the fortunes of their home State in capacities of scholarly research.

There is only one institution to be found in Arkansas where high ideals and standards of scholarship are developing as distinguished from missionary zeal to serve the immediate and pressing needs of educational demand. This is the University of Arkansas. Frequently during its work in the State the survey commission was told that the university is aloof, indifferent, hard-hearted in the presence of aspiration, unwilling to participate in the promotion of democratic education. The commission discovered for itself many evi-

dences that could be interpreted in these senses. Yet fully aware as the commission is of the needs, the immediate problems, and the limitations to human ambition that exist in Arkansas, seriously convinced as it is of the part that may be played in the solution of these questions by generally available and cheap education, and stirred as it has been by the pressing economic and social demands of the situation, the commission recognizes the value and necessity that exist for apparently ruthless hewing to the line in the establishment and maintenance of ideals and standards of high scholarship. These things are not common in Arkansas. They have a contribution to make that may seem remote, that may be difficult to understand, and that may upon occasion even result in injustice to individuals, but, nevertheless, a contribution without which the goal of educational achievement is pitched to the scale of mediocrity and ultimate failure. Therefore, the commission wishes to commend the University of Arkansas for such courage as it may have shown in defense of these ideals and to urge that they be maintained without compromise. At the same time the commission recognizes that the struggle to establish high standards of scholarship under adverse circumstances may tend to develop into overemphasis upon forms and procedures and into mere stubborn conservation which is antagonistic to vigorous development and blind to new opportunities. These attitudes defeat the purpose that led to their development. Leadership in the establishment of scholarly standards and ideals is a function that the university should exercise; it can do so only by a vigorous policy of participation in the educational life of the State. Leadership is lost even in the field of scholarship when an institution drifts into the backwaters of the life of its time and of its community and refuses to take responsibility in the rapidly moving currents of contemporary development.

This report has already indicated that in the opinion of the survey commission there are two almost equally important methods by which increased and more efficient higher educational service may be secured by the State from its higher educational institutions, increased financial support, and reorganization of control to secure better articulation of program and management. It has recommended that increased support be made to depend to a degree upon cooperation in coordinating the elements of the State's entire educational system. It has urged a specific readjustment of the status of the State department of education and of the relations of the State board of education to the government of the teachers college at Conway and Arkadelphia, and to the administration of teacher training in the junior colleges at Jonesboro, Magnolia, and Monticello. The question naturally arises as to what shall be the relationship of the university to

the unification of the State's educational efforts through adjustment of the agencies that govern its institutions.

It is rather obvious that the functions of the university are in many respects different from those of the other institutions of the State. Yet it shares with them dependence upon the high schools of the State for its students. It equally with them is preparing its students for participation in the life of Arkansas. It has an important obligation to prepare teachers and supervisors for the public schools of the State. Articulation of the university with the junior colleges is essential if the outstanding students of the latter institutions are to be given an opportunity to continue their education into the upper years of college and beyond smoothly and easily. The university whether it will or no must serve the students of its local community in much the same capacity that the junior colleges do in offering higher educational facilities to their regions. These conditions make it clear that the university can not be regarded as an institution separate and apart from the other agencies of education provided by the State. Should this common interest be cemented and confirmed and to a larger degree controlled by means of extending the functions of the university governing board to include any other elements in the higher educational system?

In answering this question the survey commission has taken into consideration many factors and many relationships, but none is more important than the past and present experience of the State in assigning to the university board control over units not located in Fayetteville.

The university board formerly controlled the institution for negroes at Pine Bluff. The commission was informed by many reliable authorities in the State that the board of the university took little active interest in the institution when it was controlled by the university. The administration of the university devoted considerable attention to the institution, but was willing that it be relieved of the responsibility when it was proposed to place the college at Pine Bluffs under a separate board. The commission itself investigated with considerable care the relationships between the university and its medical college at Little Rock. It could discover no evidence of keen consciousness of the conditions that exist and that have been described, either on the part of the administration or the board, no serious sense of responsibility, or estimate of the relative values of certain phases of the work at Fayetteville and at the medical college. In so far as evidence available to the commission gave indication of the existing relationship between the university and the medical college it appears that university concern lacks vigor and that the medical college is in the main left to fight its own battles without the

aggressive interest and backing of an influential governing body. Various university authorities assured members of the commission that the university's very able and competent board was interested primarily in the institution at Fayetteville and that it would be impossible to assemble in the State a body better suited to handle the affairs of the institution. In view of these reports and conditions the survey commission was very reluctant to suggest the association with the university of any other element of the State's educational system.

The only affiliation of institutions with the university that was suggested and supported by arguments of some weight was that of bringing the junior colleges under the control of the university board. This proposal was carefully considered. The clear need for coordination of junior college work with the upper division of the university was the most forceful argument advanced in favor of this suggestion. It seemed to the commission, however, that upon both theoretical and practical grounds the work of the junior colleges at Jonesboro, Magnolia, and Monticello is much more closely related to the secondary schools and to the State department of education than to the university. Association of the teacher-training work of these junior colleges with the State department of education was, therefore, regarded as both practicable and desirable. This relationship has already been described and recommended. If the judgment of State authorities should carry this recommendation one step farther and place the junior colleges in the same relationship to the State board of education as is recommended for the State teachers' colleges but retain the present boards of the junior colleges as advisory bodies to represent and maintain local affiliations, the commission would regard the action as in harmony with purposes that in its opinion the State should seek to accomplish. The junior colleges have much in common. This is evident from the discussion of preceding chapters. They should be closely united under common control and provided with a single authoritative body to interpret their functions and relationships. It is suggested, therefore, that a single board be established for the three junior colleges at Jonesboro, Magnolia, and Monticello, preferably the State board of education, but if this is not considered desirable, a common board responsible for budgets and all the usual obligations of institutional governing bodies upon which the State superintendent of public instruction should sit with full power to vote. The commission is inclined favorably to the retention in each of the junior college districts of a local advisory body.

It will be noted that no mention has been made of the junior college at Russellville in connection with discussion of the functions of the State junior colleges, or of the proposed reorganization of gov

erning control. This omission has been made necessary by reason of special conditions with reference to this institution. In the first place its location close to the State teachers college at Conway tends to make it less necessary that it exercise teacher-training functions. In the second place, its plant is in lamentable condition. In the third place, the utterly useless textile building and equipment upon which so much State money was expended constitute visible evidence that political rather than educational advantage has played a large part in the destinies of the institution. In the fourth place, local business and political forces seem to have exerted and to continue to exercise a sinister influence over the institution and to provide an atmosphere in which it will be difficult for any institution of high character to develop. For these reasons the survey commission is strongly inclined to recommend the abolition of the school. The survey commission is of the opinion that the State can well afford to turn the plant over to local city or other authorities and withdraw State support. If this is impossible or regarded by State authority as inadvisable the school should be associated with the other junior colleges under a single governing body, preferably the State board of education.

Chapter V

Physical Plant and Libraries

The commission inspected the physical plants of all the higher educational institutions of Arkansas with considerable care. Without exception it was favorably impressed by the suitability of the sites selected and by the healthful locations that appear to have been chosen. In no case has the land available for campus purposes been so restricted as to render development difficult. Table 48 shows the amount and use made of the land owned by the institutions and supports the opinion of the survey commission based upon observation.

TABLE 17.—*Lands owned by various schools and uses*

Institution	Total number of acres	Use			
		Campus proper	Farm	Athletics and recreation	Forests, etc.
1	2	3	4	5	6
Jonesboro.....	564	30	384	30	130
Monticello.....	710	60	200	120	330
Magnolia.....	393	30	160		203
Russellville.....	700	15	665	20	
Arkadelphia.....	40½	21½	18	10	
Conway.....	79	30	43	6	
Fayetteville.....	1,163	55	1,097	11	

Nevertheless, it was apparent that in several institutions the location of buildings upon the land available had been done with little foresight and insufficient planning. This is markedly the case at Arkadelphia, where the arrangement gives a helter-skelter impression. In this instance the State has taken over a property for whose development it was not responsible, a property, moreover, that will probably prove more expensive to put into condition appropriate to the purposes for which it is intended than would an entirely new plant.

At none of the institutions has the attractiveness of site been supplemented or fully realized through consistent plans for plantings of flowers, trees, and shrubbery. Such plans should be developed for all the institutions by competent landscape architects.

and put into effect by means of local or private donation. The amount of money required to make great improvement in the appearance of the grounds would not be large, and the institutional budgets should include allowances for proper maintenance and continued betterment. As in other portions of this survey, the commission wishes to emphasize in this connection the practical and cultural importance of attractive and beautiful surroundings to the development of Arkansas educational standards. Intellectual ability can not be fully realized in an atmosphere of social and æsthetic crudity.

The external appearance of the buildings of the institutional plants is in most instances, not unsuitable to landscape development. The commission was favorably impressed by the general external appearance of the buildings and of their grouping. There were few buildings that were eyesores. A notable exception to this general impression was discovered at Arkadelphia, not only with reference to the architecture and relationship of the buildings one to another, but also in two shed-like structures surrounded by junk that would do credit to no educational institution. These sheds should be razed at once and the nondescript accumulations that surround them disposed of.

Inspection of the interior of the buildings quite generally served to destroy the favorable impression created by their external appearance. With the exception of the negro institution at Pine Bluff there are but three major structures in all the institutions of higher learning in Arkansas that are of fireproof construction, the agricultural and engineering buildings at the university and an otherwise unattractive structure at Monticello. The construction of frame and so-called "slow-burning" buildings (with wooden stairways) has led to rapid deterioration under the wasteful policy followed practically everywhere except at the university and Magnolia of skimping upkeep and care. In all the other institutions were some buildings with paint scaled and dirty; plaster cracked, discolored, and in some institutions actually fallen from the lath; sagging doors with padlocks in some instances taking the place of more conventional hardware. Composition blackboards were warped and buckled. Molding was loose or had disappeared entirely. Floors were battered and splintered.

The commission wishes to emphasize that the unsatisfactory plant conditions are not in the main due to poor institutional management. Many of the buildings are old and of construction poorly adapted to economy of upkeep and to the uses of an educational institution. Within recent years it seems to have been the uniform policy of the legislature to deny all requests for new buildings. Fur-

ther, adequate funds for reconstruction and upkeep have not been furnished, although the tone of the institutions is seriously affected by existing conditions and the practice of permitting rapid deterioration is most wasteful of the plant resources already owned.

The people of the State should fully understand the effect upon educational standards of the policies that have prevailed in the State's management of its institutional plants. The connection is direct and easily understood. Money has not been supplied specifically for new construction and remodeling. New construction and remodeling could be undertaken by the institutions only in the case of most pressing needs. The cost of such work has been paid in large part from funds which should have gone directly into payment of teachers, provision of educational equipment, and better maintenance of the plant as it stood. In other words, the institutions have been compelled to rob Peter to pay Paul. The institutions need all of the allocated mill taxes and institutional fees for operation and maintenance. All additions to capital investment should be provided by the State through special appropriations derived from funds other than the mill taxes already allocated to the institutions or by an additional tax other than the general property tax, specifically allocated to construction purposes. These are the practices in many States. The former method, special appropriation for additional capital investments, insures that permanently allocated taxes shall not be diverted from strictly educational purposes to unwise or wasteful building. The latter method, the allocation of a specific tax or portion thereof to building purposes, makes it possible for the institutions to develop and follow a long-time building program based upon careful plans for educational growth, and when accompanied by millage or other form of tax specifically allocated to institutional operation and maintenance places the entire responsibility upon the institutions for coordinated development of plant and educational program. Either of these methods makes it possible for the State and its legislature to determine with considerable accuracy whether the managements of the institutions are handling the funds available to good advantage. The present situation which requires the institutions to provide for both educational and capital investment needs from one fund makes it difficult for any but experts to determine with any degree of certainty whether the changing division of expenditure from year to year between educational and plant investment is wise or economical. Since buildings are material things, that can be seen the institutions may be tempted to unwise and uneconomical plant expenditures at the expense of the more intangible educational activities. Since the funds are very limited, hand-to-mouth practices may lead, and, in the opinion of the survey commis-

sion, have led in all the institutions of Arkansas, with the exception of the university to short-time viewpoints and mediocre accomplishments in both areas of institutional development.

Nor is the practice that has been followed in Arkansas with reference to provision of capital investment funds confined in its ill effects to use of funds provided by the State. The students, many of whom are from families that are not wealthy, are by indirect and concealed methods required to provide funds for use in furnishing the State with the capital needed to construct or repair buildings at its institutions. Fees paid by students for specific educational and recreational purposes are not being expended entirely for these purposes, but portions of the sums thus collected are placed in the general funds of some of the institutions and used for building or other purposes. The defense of the institutions that follow this practice deliberately, or unconsciously by reason of financial accounting that fails to show the condition of funds collected for specific purposes or from specific sources, is that it makes no difference whether the money for any single activity or operation comes from one source or another. It is contended that the amount of money is only so much and that it is useless to distinguish from what sources savings for expansion of plant or educational purposes come. The fallacy of this reasoning would become evident if students, parents, or the State should demand to know whether the money collected for a specific activity is actually being spent in amounts equal to the sum collected. For instance, is the institution spending as much for its student health service as it collects from students in health-service fees? Does one fee cover a variety of purposes, such as health, library, athletics, and incidentals, in such fashion that it is impossible for a student to determine how much he is called upon to pay for his own health and recreation facilities and how much he is called upon to pay for educational service through the library and incidental educational activities? Are board and room charges so combined that neither the student nor the institution knows what either actually costs? Is the institution making a profit from any or all of these activities, a profit which is concealed by means of lumping all receipts together and which may be expended for capital investment? Except at the university, these questions can not be answered satisfactorily by any of the higher institutions of the State. As is pointed out by the chapter of this report dealing with business management, this condition is largely due to failure of institutions, other than the university, to budget activities, plant investment, and the sources of their support and to set up adequate budget controls. In so far as these institutional practices result in unwise capital investments, the institutions are responsible for the

condition of their plants; but the commission wishes to emphasize once more that the degree of institutional responsibility in this respect is to a considerable degree lessened by the conditions of hand-to-mouth management imposed upon them by the State policy with reference to provision of funds for capital investment.

The situation that actually exists in the higher institutions of the State with respect to physical plants may be illustrated by certain specific examples.

The huge classrooms in the main building at Russellville are large enough to accommodate two or three ordinary classes. It is probably impossible to remedy this condition without entirely reconstructing the interior of the building. Obviously the size of the rooms was prescribed by some one totally ignorant of the space needed for college classes. They constitute an excellent object lesson in the expense which may be entailed by poor planning. Further, at Russellville is the \$45,000 textile building, housing \$30,000 worth of idle machinery, although there is not and never has been need in Russellville or in Arkansas for a textile school. The building stands as a monument to the waste that results from allowing local interests rather than State welfare to dictate educational expenditure—as mute testimony to the diversion of funds from useful to useless expenditures that results when commercial ignorance rather than educational statesmanship attempts to guide educational development. Arkansas education is in sore need of the \$75,000 that was almost entirely thrown away upon the textile building and equipment at Russellville. To make the building of real value to an educational institution of the kind that might be created at Russellville would require an additional expenditure of at least \$25,000. In the opinion of the survey commission this money can be expended more advantageously in any of the other institutions of the State.

At Jonesboro the engineering building and equipment are being put to only a small fraction of their possible usefulness. Enrollment in shop courses is entirely too small for the facilities provided and the building is unfit for other purposes as now arranged and equipped.

At Fayetteville the beautiful agriculture building with its splendid library room and classrooms is unnecessarily devoid of students. If the enrollment in agricultural courses is too small to insure efficient use of the building, there is no good reason why classes in other curricula and courses should not be scheduled there instead of in the unattractive and unsatisfactory classrooms now in use.

Detailed illustrations of plant needs might be multiplied, but in the opinion of the survey commission there are two aspects of these needs that require special and detailed treatment, provision for student living, and for library facilities. The classroom, laboratory, and physical education phases of the physical plant need additional

support, especially for remodeling and repair, but the primary needs in general are for better rooming and dining facilities and for development of adequate libraries. These two matters will be discussed in turn.

By means of a special inquiry the commission attempted to determine where the students of Arkansas institutions live while they are attending college. Table 18 shows the results of one phase of this study for the State as a whole.

TABLE 18.—Where Arkansas college students room

Classification	Where room			
	At home	Dormitory	Fraternity or club	Private family
1	2	3	4	5
Secondary.....	338	377	2	115
Special.....	25	9	8	18
Freshman.....	336	408	100	403
Sophomore.....	193	294	114	265
Junior.....	99	75	94	136
Senior.....	83	65	67	80
First year professional.....	12	4	9	15
Second year professional.....	1	1		3
Third year professional.....	2	1	3	3
Total.....	1,089	1,234	392	1,038

It will be noted that when all the higher institutions of the State are considered together approximately one-third of the students reporting live in college dormitories.

What conditions of living does the State provide for these students in the institutional dormitories? The answers to this question are contained in the following statement of the results of the survey commission inspection.

At Jonesboro the boys' and girls' dormitories are in a bad state of repair. Inside toilets are insufficient in number and without natural light or ventilation.

At Russellville the plaster is off the walls of the boys' dormitory in great patches. Radiators are rusty. Most of the rooms are squalid, containing dirty, marred, double or single beds. Many rooms that are entirely too small for the occupancy of two students are occupied by three. The girls' dormitories at Russellville need new floors, decorating, plastering, and much better bathing facilities.

The university at Fayetteville has two dormitories—one for men and one for women. Toilet and bathing facilities are inadequate and primitive. The girls' dormitory is equipped with so-called fire escapes consisting of narrow metal ladders clinging closely to the brick walls.

The Caddo Club, at Conway, used as a dormitory for girls, should be abandoned at once. It is a wretched frame building, with cheerless and drab interior, indescribably poor toilet and bathing facilities, and is entirely unfit for habitation by those who presumably are to assist in setting new æsthetic and health standards for Arkansas.

At Arkadelphia the upper part of the administration building is used for a girls' dormitory. It is not clean and toilets are poor. Paint and plaster are needed. The exits to fire escapes are through windows which must be raised upward to enable one to make an exit from the building. The total space available for exit is only half the height of the window. Two members of the commission who succeeded in crawling through the aperture did not remain long; the shakiness of the fire escapes under the weight of two men was sufficient demonstration that they would be thoroughly unsafe if loaded by students attempting to escape from a fire. A number of "inside" rooms are used as dormitory rooms. They contain double instead of single beds. There are 9 tubs and 9 commodes for 100 people.

At Magnolia, in the high-light basement of the boys' dormitory there are rooms used as living quarters, which, in the spring of the year often contain 3 inches of water. Students are warned of these conditions before they accept the rooms, but are permitted to use them if they so elect. Space is so limited that the rooms are in use. Toilet and bathing facilities in the dormitory are poor and limited. In one of the women's dormitories at Magnolia there are 2 tubs for 40 girls.

At Monticello, Wells Hall, a dormitory for men, contains one lavatory and three commodes for 70 men. Sorrell's Hall contains three commodes for 110 men. There is an outside bathhouse with 8 to 10 showers. The floors of the dormitory are unsanitary, the room furnishings and closets undesirable, and many of the rooms unfit for student use.

Willard Hall, for girls, is clean but needs repair. The floors are without rugs. There are 4 tubs, 6 commodes, and no lavatories for 130 students. Tin wash basins are used in the rooms.

No attempt has been made to describe the odors, the disorder, the specific character of crude equipment, or the characteristic forms of dirtiness that were discovered. It is believed that the evidence submitted is sufficient justification for the recommendation that practically all the institutional dormitories in the State be razed and replaced by new modern structures or gutted and the interiors entirely remodeled. The exterior walls are in some instances in such condition that they may be worth saving, although expense of such reconstruction may be almost equal to that of new buildings.

These new dormitories should insure what the old ones do not, namely, that (1) the students shall be adequately protected from fire

hazard; (2) the students shall be guarded against dangers of contagious and infectious diseases through provision of adequate light, heat, and ventilation, adequate toilet and bathing facilities, adequate janitorial service; and (3) the students shall be freed from the danger of moral contagion and encouraged to develop standards of decent and refined living by privacy for toilet and bathing and by strict avoidance of overcrowding rooms.

In Arkansas it is especially true that students come to college and university not only to acquire certain skills and "book learning," but also to acquire improved habits and modes of living, individually and collectively, in the development of which the conditions of dormitory life are certain to play an important part. Of all building obligations the obligation to provide proper housing for students is one of the first.

No brief is presented in favor of extravagant or luxurious living conditions for students. The argument is rather for proper standards of cleanliness, comfort, safety, and decency. The dormitories of the institutions of higher learning in Arkansas have less to offer in these respects than any other buildings inspected.

Even in the matter of the most commonly dreaded hazard, fire, no adequate protection is provided. The danger is so great that the survey commission recommends an immediate survey by the Arkansas Fire Prevention Bureau.

Not only is the hazard of fire a constant one, but also the dormitories constitute a grave menace to physical health because of poor ventilation, poor lighting, overcrowded rooms, wretched toilet and bathing facilities, and obsolete methods of cleaning. Naturally, some institutions are doing more than others to maintain proper conditions. This is notably true of the university and Magnolia. But all labor under the same basic handicap of old and inappropriate dormitory buildings.

Closely related to dormitory facilities are those provided for dining purposes. Kitchens and dining rooms are an important part of the school plant. It should be unnecessary to argue at length that the dining rooms and kitchens of these institutions should be immaculately clean; that the kitchen should be equipped with modern devices for saving labor and for insuring the hygienic preparation of food in large quantities; that the dining room should be devoid of objectionable odors, its walls suitably decorated and adorned in a modest way, its curtains, linen, and tableware clean and attractive.

In only two institutions of the State, Pine Bluff and Magnolia, did the survey commission inspect kitchens and dining rooms and partake of the food provided without a feeling of repugnance. At Magnolia these rooms were clean, attractive, and entirely devoid of the institutional odor so characteristic of similar rooms in the other

schools. The high-grade and well-paid man in charge of the preparation of food at Magnolia may be in large part the explanation of the excellent conditions found there. Thus the economy of efficient service is amply demonstrated, because while the food is most attractive and the surroundings and service most desirable at Magnolia, the cost per student is the least in the State.

All of the State-supported institutions of higher learning in Arkansas need modern, fireproof, well-lighted, well-heated, well-ventilated, and well-maintained dormitories and dining halls. How shall these be provided?

Table 18 shows that 1,234 students out of 3,753 reporting, that is, almost exactly one-third, room in dormitories and this means in practically every instance that they eat in the college dining hall. Assuming that these students should be provided with modern rooming and dining accommodations it is estimated that approximately \$600,000 should be invested immediately for this purpose. It is suggested that this investment be distributed among the institutions in the approximate proportions represented by the sums suggested as follows: Jonesboro, \$80,000; Monticello, \$80,000; Magnolia, \$80,000; Arkadelphia, \$150,000; and Fayetteville, \$50,000.¹ If the institution at Russellville is retained approximately \$80,000 additional will be required.

In the opinion of the survey commission this is the minimum immediate investment that should be made on better living conditions for the college students of Arkansas. The construction should be in accordance with the standards suggested by a preceding paragraph.

Consideration of the library needs of the higher institutions of Arkansas is placed in this chapter on the physical plant not because library buildings are the sole library requirement of the institutions, but because they constitute a necessary prerequisite to proper housing of the books and other printed material that should be furnished as soon as they can be protected properly.

At Conway a small library building of modern character is being constructed upon the basis of an emergency proclamation issued by Governor Parnell. With the additional exception of the institution at Pine Bluff, this is the only library accommodation in any of the higher institutions of the State that even approaches the demands of a modern educational plant. No other institution in the State has a separate library building. No other institution in the State has a safe and convenient place for the storage and use of the printed material that constitutes the heart of an institution of higher learning.

¹ For remodeling of present facilities.

In order to determine something of the nature and size of the problem involved, Table 19 shows for each institution and for all institutions the size of present library collections.

TABLE 19.—*Number of volumes and pamphlets in library and number of periodicals taken*

Institution	Number of—		
	Volume	Pamphlets	Periodicals taken
1	2	3	4
Jonesboro.....	4,932	¹ 10,400	74
Monticello.....	5,200	4,875	76
Magnolia.....	5,000	140	79
Russellville.....	5,199	¹ 12,500	63
Arkadelphia.....	9,072	(²)	65
Conway.....	12,762	5,800	135
Fayetteville.....	95,000	(²)	738
Total.....	137,165		1,230

¹ The survey commission regards these figures as unreliable. They are based upon estimates that are clearly excessive.

² No record.

If it is estimated that these collections should be valued at approximately \$200,000, the amount certainly represents the minimum. It is probable that the library of the university alone contains books and other material that should be valued far in excess of this sum. Further, a widely accepted minimum standard for annual expenditures for purchase of books and magazines is \$5 per student. Some institutions spend three or four times this amount. Arkansas has approximately 4,000 students in its higher institutions. If it meets this minimum standard, the investment in materials to be housed in its libraries should increase at the rate of approximately \$20,000 per year.

However, the safe housing of library books in which considerable sums of money are invested is not the only consideration that leads the survey commission to recommend the immediate development of modern library buildings and facilities. Under modern conditions of instruction use of books is the most important element in the instruction and learning of students. Every student in a college or university, if his instructors use up-to-date methods and if he does his work creditably, should spend at least one hour a day in the library.

The modern conception of the place of the library in education makes it the center from which all lines of educative activity radiate. Many of the modern libraries, besides providing a main reading room, provide also accessible, well-lighted stacks which invite students to work there, librarian's office, seminar rooms, periodical

rooms, rooms for "browsing" where students may read along lines of their own interest, and many other features impossible where the library occupies only a room or two in a building constructed for other purposes.

In view of the danger of loss of the present book collections through fire, in view of the increasing importance of the part played by the library in education, in view of the inadequate space now provided in many of the institutions for stacks and reading rooms, and in view of the rapid growth certain to be experienced by the libraries of all the schools during the next few years, the commission feels justified in recommending that one of the first buildings to be provided each school be a library.

In the construction of the building no "penny-wise" policy should prevail. The building should be fireproof throughout, adequate for present needs and for the needs of the immediate future, and should provide for additions without undue expense when such additions are needed.

It is the judgment and the recommendation of the survey commission that the housing of the university library should be regarded as the most pressing obligation of the State to make new capital investment. The library at the university is now housed in the old main building, a veritable fire trap. If this building should be destroyed by fire, the loss of the 95,000 volumes there housed would be irreparable. In many cases the books could not be replaced at any price if they were destroyed. Separate fireproof housing should be provided, and in the judgment of the survey commission at least \$350,000 should be made available for a university library of the type of construction adopted for the engineering and agricultural buildings.

It is somewhat more difficult to estimate the appropriate cost of library facilities for the other institutions of the State. However, no additional State expenditure is recommended for the institution at Russellville in view of the disposition that in the opinion of the survey commission should be made of this junior college. The institution at Pine Bluff is sufficiently cared for by its present library housing although it is seriously in need of larger book funds. As has been noted, Conway had under construction at the time of the commission visit a library building to cost, it is understood, approximately \$50,000, although no provision had been made by appropriation for this expenditure. The commission believes that this library is planned on too small a scale and that it should be extended in the immediate future. It is recommended that \$100,000 be provided for the entire building. A similar amount is clearly needed at Arkadelphia: The three other institutions, those at Jonesboro, Monticello, and Magnolia, should each have a separate, modern library

building. The commission estimates that an allowance of \$75,000 for this purpose to each of these junior colleges would be adequate for present needs. The buildings, however, should be fireproof and so designed as to permit expansion. Measures should be taken to insure that the buildings be designed for library purposes exclusively and not constructed upon plans intended to provide more classroom space at the expense of library needs. It is suggested that a single architect and one set of plans be employed for these three libraries.

The need for student and library housing by no means exhausts the pressing plant requirements of the higher institutions of Arkansas. In the judgment of the survey commission the most urgent of these additional demands is that for a new science building at the university. The physics and chemistry work of the institution are housed in utterly obsolete and inadequate quarters. These fields of work are basic to the present program of the university, absolutely essential to development of research and graduate work and give greatest promise of material benefit in the economic development of the State. It is earnestly recommended that at least \$350,000 be provided immediately for the construction of the first of the two science buildings that are urgently needed.

The survey commission has thus far in this chapter recommended the expenditure of approximately \$1,715,000 upon capital investment. Exact costs would, of course, have to be determined by detailed plans and estimates.

In addition to these needs provision should be made immediately for minor additions, repairs, and construction. The university urgently needs a central storehouse to insure more economical purchasing, more careful protection of supplies and equipment in stock, and better efficiency in distribution. The buildings at Conway need extensive repairs, and facilities for physical education should be provided. Although it is impossible to estimate what the entire plant requirements of the teachers college at Arkadelphia will be, it is obvious that extensive repairs and remodeling and a new training-school building are essential. The junior colleges at Magnolia, Jonesboro, and Monticello require that considerable expenditures be made for repairs and redecorating if their plants are not to be allowed to deteriorate beyond reclamation. It is suggested that for these miscellaneous purposes the sum of \$285,000 be made available.

The total immediate expenditure upon physical plant recommended by the commission amounts to \$2,000,000. This is not a great sum as measured by the capital investment made in their higher educational plants by other States. Obviously, however, Arkansas should not attempt to raise such a sum from current taxes. The commission suggests that the State issue serial bonds to the amount indi-

cated payable over a period of 20 years. The sums required for interest and retirement should be provided for by taxation and should not in the slightest degree be deducted from the millage available to the institutions for operation and maintenance. The commission suggests further that the millage taxes available to the institutions, student fees, and all forms of institutional income other than gifts be confined by legislative act to expenditures for operation and maintenance in accordance with a uniform system of accounting and classification of expenditures.

These immediate expenditures will not put the educational plants of the State in first-class condition. The university will continue to need a second science unit, a building for the social sciences, and modern quarters for education, home economics, and physical education. The institutions at Conway and Arkadelphia should be supplied in the not far distant future with new recitation and laboratory housing. If the institution at Russellville is to be continued, at least \$25,000 should be furnished for remodeling the textile building for use as science laboratories and recitation purposes. But the survey commission has carefully considered the resources of the State with reference to the entire educational program and reached the conclusions that for the present it can not recommend the immediate investment of more than \$2,000,000 in the plants of the higher institutions.

Chapter VI

Ability to Support Education

Increased Fiscal Support and Capital Outlay are Necessary

In this report the survey commission is recommending not only (1) increased fiscal support of elementary, secondary, and higher institutions of learning; (2) increased services on all three levels, aiming at effective educational and vocational guidance; but also (3) an immediate capital outlay for each publicly supported institution of higher learning in Arkansas. It has done so in the belief that Arkansas can make this investment without violating sound business principles. In this connection it wishes to quote certain significant statements made by the commission which surveyed the public schools of Arkansas in 1921. The statements are self-explanatory. The remainder of this section will present some of the more important facts bearing on the question of increased support for education in Arkansas.

In submitting its report to Gov. T. C. McRae on November 28, 1922, the honorary educational commission which had been appointed "with instructions to ascertain the true state of educational effort and attainment in Arkansas," said, among other things:

We have reached certain simple but fundamental conclusions: (1) The increase of the material wealth of Arkansas depends primarily upon a greatly improved public-school system; (2) the public-school system of Arkansas is approaching a fiscal breakdown, and it will require an aroused public sentiment to maintain even present standards; (3) there is sufficient wealth in Arkansas now to provide for greatly increased facilities, without serious burden to our citizens; and (4) there is a constantly growing sentiment in Arkansas for the improvement of our public-school system, and the people will follow the sane leadership of the governor, the State superintendent, and the legislature.

Can Arkansas Support an Augmented Educational Program

Few informed people have ever believed that the United States, or any State, has ever even approximately approached the limits of its capacity to pay for education. The often quoted annual bill for luxuries of one kind or another bears witness to this. The States of the United States can pay for what they want or for that in which they believe. During its brief participation in the World War the

United States expended 30 billions of dollars—more money than had been spent for education, public and private, in all the history of the American Colonies and of the United States, from the founding of Jamestown down to the present time.

It is not unreasonable for Arkansas to set the average educational program of her neighbors and later that of the United States as a standard if she takes due cognizance of what is implied in the acceptance of such a standard. Some of these implications certainly are: (1) Arkansas must develop a taxing system in accordance with the best economic thought, in order to equitably distribute the financial burden to the end that productive industry be stimulated rather than handicapped. This implies a marked regression from the general property tax as a main source of revenue and progression toward the use of properly balanced and administered inheritance, income, excise, and severance taxes. This step is under way; (2) Arkansas must make careful selection of educational leaders and administrators and must so organize its educational efforts that every dollar raised by taxation may be invested where it is most needed and where it will produce the maximum in educational results; (3) Arkansas must want more and better educational facilities and be willing to sacrifice immediate satisfaction of other desires to educational attainments.

Under these conditions, and with this faith no one can doubt Arkansas' ability to pay for education. She can pay for what she wants. During the year 1924 she expended for certain luxuries the sum of \$35,893,000.¹ This represents Arkansas' bill for tobacco, soft drinks, ice cream, theaters, movies, and similar amusements, candy, chewing gum, jewelry, sporting goods, toys, perfumes, and cosmetics. The basis of the estimate is the United States Treasury reports on excise taxes. "This stupendous total exceeded all the taxes of every description paid by residents of Arkansas in 1924." It is in round figures four times the total expenditures for education made by the State of Arkansas in 1920.

Nevertheless, there is no inclination here to gloss over the obvious fact that Arkansas possesses less economic ability to meet her educational obligation than do her neighbors. Table 20 shows these relative abilities to be 0.41 and 0.61, respectively, of the ability possessed by the average of the United States.

¹ Report of Arkansas commission on business laws and taxation, Little Rock, Ark., 1929, p. 43.

TABLE 20.—*Economic resources of the United States and seven States*

State	Units of economic resources per child based on the average of the United States ¹	State	Units of economic resources per child based on the average of the United States ¹
1	2	1	2
United States.....	1.00	Louisiana.....	0.55
Tennessee.....	.50	Mississippi.....	.34
Missouri.....	.97	Arkansas.....	.41
Oklahoma.....	.61	State average.....	.61
Texas.....	.68		

¹ These units are ratios of "economic power" to "educational obligation." See Norton, John K. The ability of the States to support education, National Education Association, 1926.

Arkansas, therefore, has about 0.70 the economic ability of its immediate neighbors to meet her educational obligations. One can only conjecture what part of this lesser economic efficiency is due to Arkansas' neglect of education. Undoubtedly the fact that Arkansas is economically less efficient than her neighbors is one of the best reasons for increased attention to education. It is not easy to see how anyone can doubt that such attention is necessary.

Remedy a Psychological, as Well as a Financial One

While Arkansas' economic ability is below the average of the United States, nevertheless Arkansas can pay for an educational program equal to the average of her neighbors and eventually equal to the average of the United States (1) if she believes in education as an investment and not an expense, (2) if she wants more education rather than more of the other things for which her money might be spent, and (3) if she seeks first the thorough training of her youth for meeting the problems of life, in the assured faith that, if this is done, all other things will be added unto them.

Arkansas Can Become a Prosperous State

There is little to be found in the economic statistics of Arkansas to indicate that she can plead poverty as the fundamental and essentially necessary cause of her general neglect of education. Table 21 shows the growth in Arkansas' wealth from \$1,721,900,000 in 1912 to \$2,599,617,000 in 1922.

TABLE 21.—*Gain in Arkansas' wealth*¹

Year	Wealth	Year	Wealth
1880.....	\$286, 000, 000	1912.....	\$1, 721, 900, 000
1890.....	455, 147, 000	1922.....	2, 599, 617, 000
1900.....	604, 218, 000		

¹ Report of Arkansas Commission on Business Laws and Taxation, Little Rock, Ark., 1929, p. 53.

Table 22 shows Arkansas' economic growth, as indicated by various items of economical significance, to be encouragingly rapid.

TABLE 22.—*Economic changes in Arkansas in 10 years*¹

Item	Year	Amount	Amount	Year
1	2	3	4	5
Building and loan assets.....	1916	\$10, 174, 000	\$82, 030, 000	1926
Volume of corporate business.....	1916	85, 929, 813	393, 596, 217	1926
Motor car registrations.....	1918	41, 468	165, 110	1927
Corporation franchise taxes.....	1918	292, 070	536, 062	1928
Bell telephone stations.....	1918	42, 379	75, 362	1928
Insurance premium taxes.....	1919	273, 656	551, 908	1927
Value of mineral production.....	1917	12, 061, 702	59, 449, 000	1927
Population.....	1919	1, 750, 000	1, 945, 000	1928
Railroad taxes.....	1918	2, 580, 001	2, 768, 043	1927
Total bank resources.....	1919	145, 181, 000	167, 013, 000	1928
Total bank deposits.....	1919	109, 447, 828	135, 849, 770	1928
Postal receipts.....	1918	2, 893, 609	3, 888, 831	1927
Life insurance sales.....	1918	30, 530, 000	59, 641, 000	1927
Savings deposit accounts.....	1919	9, 907, 682	26, 821, 651	1928

¹ Report of Arkansas Commission on Business Laws and Taxation, Little Rock, Ark., 1929, pp. 50-53.

Has Arkansas Been Overtaxed in the Past?

Table 23 indicates that Arkansas's tax burden has not been unduly high. The trouble has inhered in an inequitable distribution of the burden. General property has been forced to carry too great a share. In 1919 the tax burden of Arkansas was lower than the tax burden of any of the bordering States, except Texas and Oklahoma, on the basis of the value of manufactured products. It was but 75 per cent of the average burden of the six neighboring States and but 58 per cent of the average burden of the United States.

TABLE 23.—*Tax expenditures per \$1,000 of manufactured products*

State	Tax expenditure per \$1,000 of manufactured products	State	Tax expenditure per \$1,000 of manufactured products
United States.....	23.31	Louisiana.....	40.35
Tennessee.....	31.60	Mississippi.....	22.13
Missouri.....	35.68	Arkansas.....	19.43
Oklahoma.....	12.32	Average of 6 neighbors.....	25.02
Texas.....	13.04		

TABLE 24.—*Relative State support accorded to education*¹

State	Annual educational expenditures per child, 5 to 17 years of age, inclusive				Index of support accorded to education (average of country equals 100)				Ranking of States by supported education			
	1910	1918	1922	1925	1910	1918	1922	1925	1910	1918	1922	1925
1	2	3	4	5	6	7	8	9	10	11	12	13
United States.....	17.04	27.58	55.22	65.51	100.0	100.0	100.0	100.0				
Tennessee.....	6.32	11.05	21.01	23.60	37.1	40.1	36.0	36.0	43	42	43	45
Missouri.....	13.45	25.43	47.70	57.82	78.9	92.2	86.4	88.3	32	31	30	31
Oklahoma.....	12.99	19.42	45.54	42.88	76.2	70.4	82.5	65.5	33	34	34	37
Texas.....	9.09	17.03	35.92	42.06	53.3	61.7	65.0	64.2	39	36	33	38
Louisiana.....	7.90	10.20	28.99	34.07	46.4	37.0	52.5	52.0	41	43	41	41
Mississippi.....	4.46	6.55	15.84	22.80	26.2	23.7	28.7	34.8	47	49	47	46
Arkansas.....	5.99	8.87	15.18	17.80	35.2	32.2	27.5	27.2	44	45	48	47
State average.....	9.04	14.95	32.50	37.21	53.0	54.2	58.8	56.8	40	39	39.5	39.5

¹ The Cost of Government in the United States, 1925-26, National Industrial Conference Board, New York, 1927, p. 162.

² Median.

Table 24 shows strikingly that Arkansas, as a result, partly of this low-tax burden, has accorded a support to education for the past 15 years only approximately one-half of that accorded by her six neighboring States, on the average. In 1925 this ratio was scarcely 48 per cent.

Assuming that funds for education have been administered with equal efficiency in these seven States, and assuming that education is a necessary preparation for the business of living, one can scarcely deny that in the past, at least, it has been "a calamity to a child to have been born in Arkansas" from which only those can recover who have tremendous power to overcome handicaps, or whom fortune may favor in other ways.

Table 25 shows the relative tax burdens of Arkansas and her six neighbors, based upon total net income from property and business enterprises. The amount for Arkansas is \$9.87 as compared with \$16.62, the average of her six neighbors.

TABLE 25.—*Ratio of property taxes to total net income from property and business enterprises*¹

State	Ratio	State	Ratio
United States (med.).....	17.40	Louisiana.....	19.23
Tennessee.....	12.94	Mississippi.....	21.01
Missouri.....	15.32	Arkansas.....	9.87
Oklahoma.....	17.93	State median.....	16.62
Texas.....	13.85		

¹ Ark. Com. Report, p. 214.

These data reemphasize that Arkansas has not overburdened herself with taxes in the past. Indeed, if what her neighbors have done may be taken as a fair criterion she has not levied what she should.

Has Arkansas Made Proper Use of Her Credit?

There is a narrow economic view which insists upon a pay-as-you-go policy upon all occasions. Undoubtedly this policy has its proper place in the economic scheme. It is not purposed here to attempt a defense of the economic theory that debt, properly used, is a legitimate tool of business, both public and private. Public improvements are usually either so costly, or so permanent, or both, that it is scarcely possible or fair to ask the taxpayers of a given year, or sometimes even of a given generation, to bear all the burden. Most public improvements would not exist if they were paid for out of the tax levy of a given year. Therefore, the issuing of serial bonds for a limited number of years has become a universal means of distributing the cost of public improvements more equitably to all those who enjoy their benefits, present and future. Within limits, therefore, the bonded indebtedness of a State may indicate the extent to which she has supplied herself with up-to-date tools for fashioning her social fabric.

Local Arkansas authorities have already recognized that Arkansas "has not sufficiently supplied herself with up-to-date tools commensurate with twentieth century standards, such as commodious public buildings, modern hospitals, recreational facilities, and adequately equipped educational plants."³

Table 26⁴ shows strikingly the inadequate use which Arkansas has made of her credit.

TABLE 26.—Combined State and local bonded indebtedness^a

State	Bonded debt less sinking fund (thousands)			Per capita debt		
	1913	1922	1925	1913	1922	1925
1	2	3	4	5	6	7
United States.....	3, 196, 158	7, 264, 197	9, 885, 197	23. 11	66. 10	85. 50
Tennessee.....	55, 653	119, 880	145, 623	24. 90	50. 26	59. 49
Missouri.....	53, 697	95, 645	172, 009	16. 13	27. 82	49. 37
Oklahoma.....	37, 307	109, 374	124, 794	20. 96	51. 04	54. 40
Texas.....	77, 023	339, 708	470, 235	18. 56	69. 37	90. 22
Louisiana.....	68, 066	113, 857	154, 696	30. 96	61. 81	81. 40
Mississippi.....	26, 062	91, 759	116, 602	14. 52	51. 24	65. 12
Arkansas.....	8, 130	9, 900	19, 395	4. 98	5. 48	10. 32
State average.....	52, 968	145, 030	197, 321	28. 02	62. 94	80. 98

^a The cost of Government in the United States, 1923-26, National Industrial Conference Board, New York City, 1927, p. 61.

³ Arkansas Commission on Business Laws and Taxation, p. 26.

⁴ The Cost of Government in the United States, 1925-26, National Industrial Conference Board (Inc.), New York City, 1927, p. 61.

TABLE 26.—*Combined State and local bonded indebtedness*—Continued

State	Rank of State by size of per capita debt			Ratio of debt to wealth			Rank of States by ratio of debt to wealth		
	1913	1922	1925	1913	1922	1925	1913	1922	1925
1	8	9	10	11	12	13	14	15	16
United States.....				1.75	2.31	2.83			
Tennessee.....	20	30	33	3.02	2.84	3.01			
Missouri.....	35	43	39	.95	.96	1.55	4	13	17
Oklahoma.....	29	30	36	1.21	2.74	2.95	35	44	38
Texas.....	32	19	16	1.22	3.45	4.37	28	16	16
Louisiana.....	9	22	21	3.48	3.33	4.08	27	6	4
Mississippi.....	38	28	30	2.15	4.21	4.80	3	7	8
Arkansas.....	49	48	46	.48	.38	.68	11	1	3
State average.....							47	48	47

In 1913 Arkansas' bonded debt, less sinking fund, was \$8,130,000, as compared with \$52,968,000, the average bonded debt of her six neighbors. In 1922 the comparable figures were \$9,900,000 for Arkansas and \$145,020,000 for her neighbors. In 1925 the comparable figures were \$19,395,000 for Arkansas and \$197,321,000 for her neighbors. Reduced to per capita figures, in 1925 the average per capita bonded debt of Arkansas' six neighbors was \$80.92. In 1930 the per capita bonded indebtedness of Arkansas is reported to be approximately \$47.

There is no reason to believe that these neighboring States have dangerously extended the use of their credit. How much could Arkansas bond herself for public improvements without making undue use of her credit? It appears from the above figures that the amount per capita could be increased by more than \$30. The population of Arkansas, according to the census of 1930, is 1,852,901. By simple multiplication it appears that Arkansas might expend the magnificent sum of \$55,000,000 for public improvements and still have a per capita bonded debt no greater than the average of her neighbors in 1925.

All factors considered, Arkansas is in a position to provide immediately the facilities for a greatly expanded educational program by a legitimate and justifiable use of her credit. Furthermore, she can retire these obligations in due season and meet current expenses by a judicious use of her income, inheritance, severance, and excise taxes. This may be done without overburdening the agricultural interests of the State.

Chapter VII

Business Management

The General Average of Business Efficiency in Arkansas Institutions is Low

Among the eight institutions of higher education in Arkansas visited by the survey commission, the best-managed institution in a business way is unquestionably the University of Arkansas. With few exceptions, in the remaining seven institutions the principles of good business management are violated very generally. The question naturally arises, Is this condition due to the fact that the university is larger than the other institutions and has more people employed in business management, or is it due to the fact that size with its ramifications of organization and relationships, has forced the university to employ competent business personnel, to seek and install better business methods, and to revise those methods in the light of its own experiences?

The survey commission believes that size, excepting only as it may become a driving force, is not the controlling factor. A business need not be large to be well managed. The successful small business can and does have a financial program expressed in a budget. The form of the program varies with the character of the business, but it does not vary with the size of the business. The basic principles of a plan good for a large railroad are equally good for a small one. The dollars of the budget may be fewer and the staff may be smaller, but the methods employed in the planning should be the same.

For example, it is erroneous to assume that centralized purchasing with its resulting financial control and its generally lower prices is good for a large institution but not necessary or suited to a small institution. The opinion "we can not afford a purchasing agent" is based on a complete failure to grasp the essential feature of central purchasing. Centralization of purchasing does not mean a specially employed purchasing agent and a staff or even a full-time purchasing agent. It means the placing in the hands of one individual the responsibility for securing the best goods obtainable, after due and full competition, at the best possible prices consistent with quality and service. It means further that only goods will be purchased

that are provided for by the financial program of the budget. A private business which violates this principle ends up in bankruptcy. Public institutions may violate the principle and continue to exist, for they render no profit and loss statement which determines whether or not they shall be permitted to continue, but their obligation to purchase economically is no less urgent than that of private business.

Or to use another illustration, if an accounting system is effective in the management of a large business it is equally effective in a small business. The only difference between the large business and the small one is in the number of dollars recorded and the number of entries necessary to record them. The methods should be the same and the accounts which furnish the guides to management of the large institution should guide equally well the management of the small institutions. If it is essential to safeguard money received by the large institutions, it is just as essential to safeguard the smaller sums received by the smaller institutions. The same conclusion may be reached relative to audits, inventories, disbursements, and all of the other phases of business management of higher education.

The success of business management in higher education is dependent upon the competency of its business staff, and competency will to some extent vary with the degree to which it is possible to specialize the functions of employees. This fact should not discourage the smaller institutions, which must assign several of its business functions to one individual, but it should emphasize the desirability of requiring that individual to use the best methods in performing his tasks. Elsewhere in this report it is recommended that a business officer competent to install these methods, to supervise them, and to improve them as experience dictates be employed to assist all the States' higher institutions except the university. The survey commission also believes that the local institutional officers in immediate charge of business matters should organize for the exchange of experience, opinion, and knowledge, and that like teachers they should be required to keep abreast of the expanding knowledge of their fields by visits to other institutions, by attendance at business officers' association meetings, and by study of the literature of their profession.

The survey commission has attempted in the following pages to outline the organization, methods, and procedures which the experience of well-managed educational institutions has indicated to be essential and best suited to the conduct of their business activities. It has also appraised the business organization, methods, and procedures of the eight Arkansas institutions in the light of these standards.

Business Organization

Two classes of activities—education and business.—The activities of an institution of higher education are of two kinds: (1) Those which pertain strictly to matters educational, such as teaching, research, extension, and State service; and (2) those which are auxiliary to the educational features and may be classed as business, such as receipt and custody of funds, maintenance of general and cost-accounting records, purchasing of supplies, materials, and equipment, payment of salaries, the care of land, buildings, and equipment; and the operation of service enterprises, which include dormitories, dining halls, cafeterias, book stores, laundries, and the like.

Business activities should be centralized.—The business activities enumerated above have been centered in one officer in the institutions where business practice is most efficiently developed. This officer has been variously termed "business manager," "secretary," "business secretary," and "bursar." The title is unimportant, but centralization of these functions is of importance if the funds, the property, and the business operations of the institution are to be properly safeguarded. The chief business officer should be, and usually is, responsible to the president of the institution.

In the larger institutions the business manager has as assistants a purchasing agent, a superintendent of buildings and grounds, a chief accountant, and either individual dormitory, dining hall, and other managers, or a director of service enterprises who is responsible to the business manager for the operation of these enterprises. In smaller institutions these duties may be performed by a smaller number of individuals who spend part time or full time on these duties, but in all cases they should be responsible to the business manager in these particular fields.

Authorizing and auditing expenditures and disbursing are functions not to be combined in one individual.—It is a cardinal principle of good business organization that the individual who authorizes and audits expenditures should not be the disbursing officer. They should be independent and coordinate. In the Arkansas institutions, as elsewhere, the treasurer of institutional funds should not be the business manager; the provisions of Arkansas law which seem to require this dual functioning should be abolished. This division of responsibility may well be recognized by selecting a local bank as treasurer. The emergency cash needs of the institution may be met by providing a petty cash fund for the business manager or his designated assistant.

At the University of Arkansas the responsibility for accounting, purchasing, buildings and grounds, and service enterprises is centered in a business manager, but at the other institutions these func-

tions are variously distributed among the president, business secretary, members of the teaching staff, and others. The lines of authority and responsibility are so little known and so vaguely drawn that the only safe statement is that the president is the responsible head of the institution. In educational institutions, as in business, such lack of clear-cut organization breeds inefficiency.

At Russellville, Magnolia, Conway, Arkadelphia, and, to a degree, at Jonesboro and the State university, one individual may receive cash, purchase, audit, and pay from institutional funds. As previously pointed out, the treasurer function should be completely divorced from the other functions if there is to be any semblance of financial protection. The present arrangement is unfair to the individual, for it offers too easy an opportunity for accusation of dishonesty. It is dangerous to the institution; for it opens wide the door to fraud almost impossible of detection. It is a basic requirement to the improvement of the business situation in the Arkansas institutions that legal restrictions that are responsible for this unsound practice be removed.

Budgets and Budget Control

The budget, a financial expression of the educational program.—It has become a common practice in many educational institutions to express the educational program in financial terms by means of an annual budget. A carefully prepared and properly administered budget has come to be generally recognized as an effective instrument of control in educational administration. Boards of trustees meet infrequently, and, unfamiliar with details of management, have particularly welcomed its introduction. Such an educational budget records anticipated income and provides a program for expenditure of the funds available.

The income part of the budget should contain a statement of funds available for general educational purposes set forth in some detail and the anticipated income from departments, such as departmental sales of produce and the like. The expenditure part of the budget should contain a separate statement for each department of the temporary service and clerical assistance, and lump sums for supplies, expense, and equipment.

The income and expenditure part of the budget should be balanced and a reserve of funds to meet any emergencies which may arise should be established. The size of the reserve fund should vary with the size of the institution. In the smaller institutions from 5 to 7 per cent may well be set aside in reserve, but in the larger institutions a smaller percentage will usually be found to be adequate. The

emergencies to be met are of two kinds—unanticipated necessary expenditures and unanticipated decreases in estimated revenue.

What the budget should include.—The budget of the institution in its completed form should include not only income and departmental allotments for staff and supplies, but should also include a statement of the money value of perquisites, such as residences, rooms, board, and laundry furnished. Otherwise the budget fails to show the real compensation paid to members of the staff and does not permit comparison of salaries within the institution as between departments, or outside with other institutions.

The budget should include all funds expected from all sources, and expenditures for all activities, including the so-called service enterprises, such as dormitories, dining halls, book stores, laundries, and the like. The budget should generally be based upon the experience of the past, with such changes as new conditions may dictate.

The budget should be carefully planned.—The budget requests presented to the president by the several departments of a college should represent the combined judgment of the several department heads and the dean and when presented to the governing board the completed budget should represent the combined judgment of all the department heads, the dean or deans, and the president.

In the first instance the budget should be definite in the amounts allotted departments for positions and supplies, expense, and equipment. Funds allotted for teaching and other positions are presumably based, or should be based, upon the teaching and other activities to be conducted by a department. If the positions are not filled it may be assumed that the positions are not needed for that year and that the funds released in this manner can be made available for general institutional purposes. They should be reverted to institutional reserve to be later redistributed on the basis of the relative needs of the various activities of the institution.

The budget should be an instrument of control.—The pay rolls of the institution should conform to the budget allotments and no obligations against the allotments for supplies, expense, and equipment should be incurred except with the prior approval of the president or the business manager; nor should they be incurred unless they are in accordance with the general controlling provisions of the budget.

A budget establishes a definite number of positions and a definite sum for supplies for one department or activity. That department may be English with the task of teaching a thousand credit hours; it may be a heating plant with the task of furnishing heat for four buildings; it may be a dining hall with the task of serving a thousand meals a week; or a registrar's office with the task of keeping records for 500 students. The allotments are definite; the task is definite; and furthermore, the requisitions and purchase orders of the

department must be within the limits of the budget allotments and be approved before an obligation is incurred. Under present conditions, in all of the Arkansas institutions except the university, this comparing of recorded expenditures with estimated expenditures has none of the characteristics of a budget. The budget is a device to control ahead of the incurrence of the obligation and not after the obligation has been incurred by purchase order, the invoice rendered, the payment made, and the transaction recorded.

These principles should govern the preparation and operation of the institutional budget, but the detailed methods of administering the budget may well vary somewhat with the size of the institution.

The budget of the State university.—The State university prepares a detailed budget both of income and expenditure for its operation. Funds are allotted to the several departments for teaching and other positions and for supplies, expense, and equipment. The income, salary, and supply portions of the budget are assembled in a formal document. Although much time and effort is consumed in considering departmental requests and needs, and a decision is reached in adequate time before the beginning of the fiscal year, the requisitions and orders are not regularly charged to the departmental allotment until the last few months of the fiscal year. If the limitations of the budget are to be strictly adhered to, provision should be made for regular and systematic recording of requisitions and orders issued throughout the year.

The present statements to the State comptroller are in no sense budgets.—Each of the remaining seven institutions of higher learning in the State prepares for the State comptroller a statement of estimated income by major sources and a statement of the probable distribution of this income according to such classifications as salaries, laboratory equipment, laboratory supplies, light, heat and water, telephone, telegraph, postage, and the like. Each month the income and expenditures are compared with the totals expected for the year or the month. The impression seems to prevail that this is a budget. It is not a budget in any sense of the word. It does not provide any detailed plan of operation. It makes no provision against the incurring of obligations beyond ability to pay, nor does it reveal the status of obligations at any one time. As an instrument to aid in planning a proper distribution and use of funds available and to aid in controlling institutional operations it is entirely ineffective.

Purchasing

The purchasing function must be centralized.—Proper financial control necessitates that there be a complete centralization of the purchasing function. It is obvious that no well-ordered plan for

educational and other activities of an institution can be carried out if obligations against the resources of an institution may be incurred by a number of individuals without the knowledge of the business manager, who is responsible for carrying out the plan adopted in the budget. Furthermore, if a number of individuals are incurring obligations it is quite clear that there can be no control of the obligations nor can the extent of the obligations be known at any one time.

Formal requisitions for all purchases.—If funds are allotted to departments it follows that these departments should initiate the necessary requisitions for purchases. For this purpose letters and word of mouth are unsatisfactory because the essential details are usually either not given or are forgotten. A formal requisition designed to furnish the essential information has proved to be the best device. The requisition form should be prepared by the responsible department officer, should be signed by him, and submitted to the business officer for review in the light of the provisions of the budget and to determine whether the request is in conformity with the established policies of the institution. This review should follow determination that the departmental budget funds are free and available for the proposed purchase.

The three principal objectives of purchasing are service, quality, and price. Ability to attain these objectives depends largely upon the volume of purchases made and the knowledge of markets possessed by the individual placing the purchase order. Obviously, volume requires a complete centralization of institutional purchases, and particularly in the case of small institutions cooperating with other institutions and State purchasing agencies where these agencies exist.

The eight higher educational institutions of the State should co-operate with one another in the purchase of materials, supplies, and equipment commonly needed by all in their operation, and in most cases these institutions may secure valuable purchasing information and added purchasing power through membership in the Educational Buyers' Association.

Knowledge of available sources of supply is essentially a problem of individual initiative and skill. It therefore follows that each institution should have on its staff a competent individual who has the time and ability to search for the best sources of supply. Such an individual should consult with and be guided by the advice and counsel of those on the institutional staff possessing special knowledge of technical equipment and the like. The final decision, however, with regard to the placement of purchase orders should rest with the purchasing agent.

Purchasing must be on a competitive basis.—In purchasing for public institutions competition is essential. Failure to secure quotations from two firms, or as many firms as desire to bid, arouses needless criticism and suspicion of favoritism in the public mind. A public institutional purchasing agent should maintain a file of firms that have satisfactorily furnished materials and equipment. A file of catalogues, together with the most recent price lists and a commodity index of past purchases have come to be recognized as valuable aids to good purchasing.

Orderly and effective purchasing requires a formal quotation or bidding form and a formal purchasing order. The formal quotation form should be sent out for all major purchases, and in the absence of recent competitive prices should be used for even the smaller purchases. Emergency purchases should be made only infrequently. This is particularly true in State-supported educational institutions where the available funds are well known and the needs for materials and equipment can usually be determined well in advance.

The purchase order should be used in all cases. Proper financial control can not be expected unless obligations become a matter of formal record in the business offices. Blanket orders and contracts may be employed to cover purchases of food perishables, gasoline, oil, and other commodities frequently and regularly needed.

Status of purchasing function in Arkansas institutions.—With the exception of the State university, purchasing is not centralized in any of the institutions in Arkansas. At Conway and Pine Bluff some departments do their own purchasing! At the other institutions three or more staff members are authorized to purchase. Only three institutions have a formal requisition form, only three a purchase-order form, and only the State university a quotation form. Measured by competition secured and the orders placed locally, all of the institutions must be failing to obtain the best prices. The State university sent out only 200 inquiries for bids in placing 9,260 purchase orders during the fiscal year ended June 30, 1928. None of the institutions has a good file of catalogues, none has a commodity index of past purchases, and none has cooperated in pool buying. Only the State university has membership in the Educational Buyers' Association.

The institutions, without exception, have no staff member sufficiently relieved from other duties to permit any real executive purchasing. It is quite possible that a proper exercise of this function would result in savings larger than would be necessary to provide clerical assistance so that the business officer might become a purchasing agent in fact as well as name. This is particularly true at the State university. Obviously, a \$1,200-a-year clerk can not be expected to do effective purchasing.

Funds

Funds classified.—The funds of the eight State-supported higher educational institutions are divided into three major groups: (1) Those provided by the State; (2) those provided by the Federal Government; and (3) those arising from the operation of the institution.

Suggested division of State appropriations.—The appropriations of the State are generally divided into "salaries," "wages," "maintenance," and "equipment or permanent improvements." These funds are accounted for separately on the books of the institution and on the books of the State auditor's office. The need for this degree of separation is not clear. The better practice in budgeting and appropriating may be summed up in the expression, "detailed budget requests and lump-sum appropriations." If the legislative budget requests of the institutions were sufficiently detailed to show not merely a distribution of the desired appropriation, but the complete financial program, including estimate of the amount and use of all institutional income, there would exist no reason for the present separation of appropriations. Transfers between appropriation items are invariably more or less perfunctory. It is believed that the several institutions could administer the funds available more efficiently if the appropriation were divided into not more than two items, an appropriation for maintenance, which would include salaries, wages, supplies, expense, and equipment, and one appropriation for new buildings and major improvements. The greater elasticity which would result and the elimination of unnecessary routine should be of real assistance.

Federal funds may be carried in one bank account.—The Federal funds include the Morrill-Nelson, Adams, Hatch, Purnell, Smith-Lever, and Smith-Hughes funds. These funds must be separately accounted for to meet the requirements of the Federal Government, but they may well be handled through the institutional treasurer. Separate bank accounts are not necessary for these funds. They can be consolidated with institutional funds in a single bank account. The needed separate accounting can be accomplished on the books of the institution.

Nature and care of institutional funds.—Institutional funds include those paid to the institution for service rendered, such as registration and laboratory fees; those arising from operation, such as sales of agricultural products, which ordinarily represent a reclaiming of a part of the funds expended for teaching and research; those arising from services rendered to the student body and the institution as a whole, such as dormitories, dining halls, cafeterias,

bookstores, and laundries; and those which represent gifts to the institution usually for special purposes, such as student loans, scholarships, equipment, and buildings.

Although all institutional funds may be placed in a single bank account, the institutional accounting records should set forth clearly and separately the receipts and expenditures for (1) the fees and reclaimed expenditures, (2) the individual service enterprises, and (3) the individual gifts.

Cash Receipts

Some protective devices.—The eight institutions receive and deposit in their institutional treasuries about \$900,000 each fiscal year. These funds are received in many payments, large and small. The amount of money handled, quite apart from the element of trusteeship for public funds, demands that all possible safeguards be thrown around the receipt of these funds and their custody.

No system has as yet been devised which will completely insure that all funds received will find their way into the treasury. The honesty of the individual is still the major factor, but safeguards to protect the individual and the institution have been generally accepted as essential. It is common practice not to permit a cashier to receive funds without issuing either a hand-written or cash-register receipt. It is also the common practice to designate one individual to receive all cash and bond that individual to an extent which will protect the maximum funds usually found in his possession. Furthermore, it is common practice to have receipts numbered by the printer and to hold the cashier accountable for all receipts printed and delivered to him.

In many educational institutions student fees are assessed by the registrar and collected by the cashier. The registrar's statement of fees is often prepared in triplicate and serially numbered. The student presents the statement to the cashier, makes payment of his fees, receives one copy as the receipt, the cashier retains one copy, and one is forwarded to the registrar. By this method the registrar's records become a check on the cashier's records. In some institutions the registrar notifies instructors to exclude from classes those whom his records indicate have not paid their fees. In other institutions the student is required to present a receipted fee statement for admission to the class. In still other institutions the registrar supplies the instructors with the names of students who have registered and paid their fees and the instructors are directed to exclude all others from their classes. By any one of these three methods the payment of fees is enforced and check upon the fee receipts of the cashier is possible.

The volume of business in some of the offices other than the cashier's often warrants the installation of a cash register. The cash-register record can be audited by the accounting office. If the volume of business is not sufficiently large to justify the expense of a cash register, numbered receipt books can be furnished by the cashier's office and the department required to give its customers a receipt. Departments that receive money must then account to the cashier for the amounts recorded on each one of the numbered receipts furnished. When departmental receipts are turned into the cashier's office a receipt should always be issued by the cashier and retained by the department. In an audit of the cashier's office a reconciliation should be made of the receipts recorded in the departmental office with those in the cashier's office.

Wherever conditions permit, goods sold should not be delivered to the purchaser until he presents a receipt from the cashier's office showing that payment has been made. This tends to concentrate cash receipts in one office.

Insufficient safeguards are provided in Arkansas institutions.—Each of the Arkansas institutions has designated one individual in the administrative organization to be responsible for receiving all cash. Each gives receipts for student fees, and Conway goes to the unnecessary trouble of separate receipt forms for each class of fee. At Conway the receipt books are not numbered; at Arkadelphia no copies of receipts given are retained by the business office; and at none of the institutions is there any printer's certificate of receipt books printed and delivered. At Jonesboro some departments are not given receipts for money turned in. At Magnolia departments do not in all cases take receipts, which in large part nullifies the value of the practice of receipt issue. The State teachers college extension department at Conway accepts postdated checks, and at Arkadelphia only 50 per cent of student fees were collected during the first month of the academic year. The cashiers at Jonesboro and Arkadelphia are not bonded, and the bonds of the cashiers at Russellville, Monticello, Conway, Fayetteville, and the medical college at Little Rock are inadequate. These conditions should emphasize the necessity of giving administrative attention to the receipt and custody of institutional funds. The methods employed are generally loose. At any of the institutions other than the university it would be a simple matter to appropriate for personal use funds of the institutions with little fear of detection. The survey commission does not wish to convey any impression that there has been dishonesty, but it does wish to emphasize the deplorable lack of proper methods of control.

Disbursements

Institutional disbursements fall into two major classes: (1) Those for personal service; and (2) those for supplies, contractual service, equipment, and buildings. Disbursements for personal service are considered under the heading of "Time keeping and pay rolls," and disbursements for other purposes under the heading of "Payment of invoices."

Time keeping and pay rolls.—All pay rolls should be substantiated by time-book records maintained either in the central office or in the office of the department heads. These records should be available at all times for audit. In the larger institutions the pay roll should be prepared by the department, certified by it, and presented to the business office for payment. In the smaller institutions the pay roll may be prepared in the business office but only on a certified statement of the time worked by each individual furnished by the responsible department head. The pay roll should be audited by the business office to insure correctness and conformity with the provisions of the budget.

Functions of time keeping and pay-roll certification and payment should be separated.—No one individual in any institution should be responsible for the three operations of time keeping, pay-roll preparation, and disbursement of funds. If there is to be any reasonable protection against fraud the functions of time keeping and pay-roll certification and payment should be separated. The time keeping for every individual should be sufficiently detailed to permit a distribution of salaries and wages to the several activities represented by the funds, departments, and accounts maintained for the administration of the institution.

Time records are not maintained at any of the Arkansas institutions for regular members of the staff. It may be that small staffs do not require this record, but it has often been found advantageous for reference and substantiation whenever questions of fact have arisen. The time records of temporary employees are kept and reported in as many ways as there are institutions and departments. Standard prescribed departmental time books and standard time reports with provision for distribution of time to activities and accounts would facilitate the clerical work of the departments and simplify the task of the business office. At Magnolia and Fayetteville the officer charged with the preparation of the pay rolls signs the pay checks. At Conway the State voucher for the pay roll is deposited with one bank and credited by the bank to personal deposit accounts of staff members—a method of labor saving, but rather unsatisfactory from the standpoint of the clear and complete financial record that the State has a right to expect from its institutions.

Time keeping and pay roll procedure need attention at all of these institutions. The records are wholly inadequate, and, above all else, the procedure should be revised so that the possibility of "pay-roll dummies" will be eliminated.

Payment of invoices.—All invoices should be received by the business office, checked with the purchase order, and forwarded to departments. If the invoices carry discounts a sticker should be attached which will advise the departments of the need for early return. In the absence of a central receiving office, the responsible departmental officer should sign the invoice. His signature should be notice to the business office that the goods have been received and are satisfactory. No payment of an invoice should be made without such approval. The business office should maintain a follow-up system to insure that all invoices received and forwarded to departments are returned. This may be done either by retaining a copy of the invoice, should it be presented in duplicate, or by proper notation upon the appropriate purchase order.

Invoices should be paid promptly after verification and approval. The noticeable lack of cash discounts at the institutions visited is traceable, undoubtedly, to the practice existing at most institutions of paying invoices only once a month.

The State authorities have provided for a voucher plan of payment from State appropriations. The institution prepares a voucher and mails it to the vendor. The vendor signs the voucher and deposits it with his bank for collection. The bank clears the voucher to Little Rock and on presentation the auditor draws a warrant on the treasurer and the bill is paid. It is possible that a change in this system, which would provide for the abstracting of the invoice to the State auditor and the immediate preparation of an auditor's warrant which should be sent to the vendor, might result in lowering the cost of institutional purchases, particularly those from outside the State, for the reason that this procedure would conform more nearly to accepted business practice.

A uniform voucher check should be employed by the institution for the payment of salaries and invoices from institutional funds. This voucher check should be prepared in duplicate, one being sent to the payee and the other filed with a copy of the vendor's bill, or, in the case of salaries, with the pay roll. One form of voucher check should be adequate provided it carries full information of the proper fund, department, and class of expenditure. It might be well also to give reference to the covering requisition and purchase order.

At nearly all of the Arkansas institutions the invoices are received by the business office, but without requisitions and purchase orders. With a number of departments placing orders the distribution of

invoices by the business office to the proper departments is often a difficult task. In all institutions, except Magnolia, where departmental approval is not always secured, and Arkadelphia, where departments merely indicate "O. K." without name or initials, there exists some authority outside of the business office for payment. At Monticello the business office verifies many invoices by means of shipping tickets approved by the departments. The State university is the only institution which consistently passes its invoices daily for payment. The institutions should require approval and verification of invoices outside the business offices. Otherwise "dummy invoices" afford an opportunity for fraud equaled by the "pay roll dummy."

Accounting Records

Uniform accounting system for all State-supported institutions.—The accounting system of the eight State-supported institutions of higher education should be uniform and should be so devised that it will reveal first, the status of budget accounts, second, assets and liabilities, and third, operating income and expenditure accounts. Both the budget accounts and the income and expenditure account should be departmentalized so that figures may be currently available which can be compared with and measured by the teaching loads as recorded in the registrar's office.

The budget accounting should reveal the status of the allotments for each position, of the lump-sum allotments for clerical and temporary assistants, and of the lump-sum allotments for supplies, expense, and equipment. It should also reveal the status of the income estimates upon which expenditure allotments have been based.

Classifications forming basis of uniform accounting systems.—The general accounting system uniform for all institutions should be based on the following classifications:

- (1) Classification of funds divided into (a) State appropriations, (b) Federal funds, (c) institutional funds, and (d) trust funds.
- (2) Classification of all departments, offices, and activities in one of the following major divisions: (a) Administration; (b) general; (c) teaching; (d) research; (e) physical plant; (f) service enterprises; and (g) trust funds.
- (3) Classification of income, including, among others, student fees, laboratory deposits, agricultural products such as livestock, poultry, butter, eggs, etc., equipment sales properly subdivided, and the like.
- (4) Classification of expenditures sufficiently detailed to reveal, for example, the different classes of personal service, the various kinds of supplies and expense, and the expenditures for lands, buildings, and equipment.

(5) Classification of asset accounts, such as lands, buildings, equipment, livestock, museum, cash and inventories, and of liabilities.

Accounting records needed.—The accounting records of the institution, with these classifications as a basis, should include as a minimum the following: (1) A general ledger showing the status of asset and liability accounts, such as cash, lands and buildings, liability accounts, and operating income and expenditure control accounts; (2) an income ledger showing receipts by funds, departments, and class; (3) an expenditure ledger showing expenditures by funds, departments, and class; (4) a journal for recording corrections in accounts and transactions between departments within the institution; (5) a voucher or check register to record by voucher or check number expenditures set up for distribution to major control accounts; (6) a cash receipts ledger for the recording and distribution to major accounts of summaries of individual cash receipts issued; (7) a land ledger showing the details of land purchased and owned; (8) a buildings ledger showing original cost and capital additions; (9) an equipment ledger showing, by departments and major classification, equipment owned; and (10) an authorization or job-order ledger which would record construction or manufacturing operations undertaken by the department of buildings and grounds or other departments of the institution.

These ledgers do not necessarily require separate books, for many may be included in a single binder. This system of accounts is not designed for a large institution nor for a small one. It merely represents the minimum needs of all. The only essential difference between the large and the small institution is the difference in the number of dollars recorded, the number of entries made, and the number of activities to which distribution is necessary.

All activities undertaken by an institution involving finances should be recorded.—The accounts should be so kept and maintained that costs may be readily secured and monthly and annual reports easily prepared. No activities should be undertaken by the institution which are not recorded in its accounts. Two institutions, Conway and Arkadelphia, have in the past conducted summer sessions without proper and full accounting. In both cases funds from summer sessions have been deposited in separate accounts, and after paying certain minor expenses the balance has been divided equally among the members of the staff. No official records remain of these transactions, but the institutions report that the practice described has been abandoned.

Extent to which institutional accounting records conform to foregoing plan.—The accounting records of the university conform closely to the plan outlined. Only the land and building subsidiary ledgers are missing. The accounting records of the other institutions

vary from the meager accounts of bank deposits and withdrawals, income and expenditure for each of five funds at Conway to the reasonably complete records at Monticello. Again excepting the State university, income and expenditures are not separately recorded by departments and activities. The direct expense of teaching chemistry, for example, is not revealed by the accounts and can not be reviewed in the light of the teaching load. The cost of maintaining buildings can not be determined from the accounts nor the cost of maintaining the campus and operating the heating plant. These costs are buried in such general accounts as academic instruction, laboratory expenses, office supplies, telephone, telegraph, and postage, light, heat and water, care and repair of buildings and grounds, salaries, and other wages. The accounts carried represent a curious mixture of departments and objects of expenditure. As they exist they are useful, but departmentalized and sufficiently detailed they would constitute an efficient tool of administration.

The Arkansas institutions need badly a new, complete, and uniform system of accounting based upon proper methods and in keeping with modern educational standards.

Monthly and Annual Reports

In the preceding section the necessity of building an accounting system to provide with ease figures necessary for monthly and annual reports has been emphasized.

The State comptroller now requires each institution to prepare an exhaustive statement which includes a balance sheet, expenditures and receipts under major activities, reconciliation with bank statement, and in some cases an actual listing of all invoices paid. The value of preparing a monthly balance sheet and of listing individual invoices is questionable. The invoices drawn against State appropriations are already available in State offices. The clerical work incident to the preparation of the balance sheet and the listing of the invoices might well be avoided.

For internal administration and for the information of the governing board the monthly report should contain in summary form the status of the budget both as to income and expenditure, the actual income received, the actual expenditures made, and the status of cash, obligations, and free balances.

The annual report should include the balance sheet, statements of revenue and expenditures, and the detailed status of all assets and liabilities. The annual report should be printed and distributed for purposes of internal administration, for the information of the governing board, and to acquaint the public with the financial status and problems of the institution.

The monthly reports of all Arkansas institutions are sufficiently inclusive and at one time, it is understood, were uniform. The changes in activities and objectives, however, now necessitate a new standardization. All prepare an annual report but none publishes one.

Audits

Annual audits.—The accounts of each institution should be audited annually by an external agency. In Arkansas this audit is performed by the State comptroller, but is now limited primarily to cash receipts and expenditures as shown in the central accounting records. It should include an examination of the purchasing, pay roll, time keeping, and cash receipts, and disbursement procedures. The annual audit should also include an examination and reconciliation of the cash receipts, records of departments, and in particular the registrar's office, with those of the cashier and the accountant. It does not now include any of these checks.

Good administration dictates that in addition to the annual audit there should be occasional, unannounced, internal audits of the cashier and of any other departments, offices, or individuals receiving institutional funds or making disbursements or spending funds from petty cash. No internal audits are now being made.

Storehouses

Price considerations resulting from volume purchases, the possibility of securing certain supplies at favorable prices during limited seasons of the year, and the necessity of rendering service to the various departments of the institution have led many institutions to establish storehouses. The storehouse has been looked upon as a department of the institution. Purchases are made for the storehouse, and as the storehouse issues to departments the storehouse account is credited and the departmental accounts are charged. The storehouse has become another instrument of effective purchasing. Few institutions are without an office and supply storeroom; some have a buildings and grounds storeroom, others a general storeroom, and still others chemical storerooms and cold-storage plants.

The Arkansas institutions of higher education have almost completely failed to take advantage of the economy and service possibilities of storerooms. The dining-hall storeroom at Magnolia is the only one operating on the basis which has been described. The university is greatly in need of a general storehouse, as evidenced by the large number of purchase orders written (9,260—a normal number would be possibly 3,600), and the other institutions have sufficient supplies scattered through their buildings and departments to warrant at least a storeroom for protection purposes alone.

The following institutions have central storerooms, and their enrollments and number of purchase orders issued are as follows:

NOTE.—Data for other institutions run about the same. This suggests a ratio of about 2 purchase orders per student in the small schools.

	Enrollment	Number of purchase orders
University of Arizona.....	2,033	4,000
University of Nebraska.....	6,957	12,703
University of Illinois.....	12,738	14,118

NOTE.—Data for other institutions run about the same. This suggests a ratio of about 2 purchase orders per student in the small schools.

Inventories

Each institution should maintain a perpetual inventory of land, buildings, and equipment, and the inventory and equipment should be annually verified by a physical check. With proper procedure this physical check of equipment can be distributed throughout the year. Some institutions have also found an annual inventory of supplies a means of preventing departments from overstocking and a necessity in figuring the costs of the departments using large amounts of supplies.

The inventory of land, buildings, and equipment should be kept in special ledgers subsidiary to the general ledger. The land ledger should contain such data relative to each piece of land as original cost, source of funds, acreage, location, and legal description; the building ledger, such information as date of construction, amounts of general, plumbing, heating, electrical, and other contracts, costs of engineering and architectural services, total cost, square feet of floor space, cubage, and costs of any capital additions; and the equipment ledger, the equipment by departments, and equipment classification. Supporting the equipment ledger should be the final detailed record of each piece of equipment, its location by department and building, and its identification number.

The inventories of educational institutions should be on a cost basis. Only in those cases where the cost is not known should an appraisal be entered in the records. Appreciation and depreciation of assets is not necessary for institutional or State administration. It is costly, usually more inaccurate than original costs, and is not of any particular significance for an educational institution. Business firms use the system of appreciation and depreciation records in order to present a favorable balance sheet as the basis for larger stock or bond issues, or to secure loans on specific pieces of land or on individual buildings. Educational institutions do not need to make financial profit and loss statements.

All of the Arkansas institutions report an inventory of land, buildings, and equipment, but none takes an annual inventory of supplies. None except the university, which has equipment ledgers, maintains special land, buildings, and equipment ledgers of the kind described. All make an annual physical check of equipment except Conway, which has had no check for five years and Arkadelphia which made its last check some four years ago, before it became a State institution. Conway, Arkadelphia, and Magnolia do not keep inventories in balance with their ledgers. The university is the only institution which has its inventories on a cost basis. It would appear that appreciated plant values are being used by some to attract students. Incidentally some of these institutions have overlooked the fact that these artificial plant values serve to conceal their real needs for additional buildings and equipment.

Fees

There exists no uniformity of fees for registration, for library, for athletics, for health service, for diploma, or other fees among the eight institutions. The annual athletic fee varies from \$1 to \$10; the diploma fee, from \$5 to \$10; the health fee, from 50 cents to \$12; the registration fee, from \$5 to \$12.50; the library fee, from \$2.50 to \$6. The services for which these fees are supposed to provide are in many cases of a sufficiently similar character to warrant more uniform fees. For instance, the service rendered for the health fee may vary somewhat, but certainly not to the extent represented by the difference between 50 cents and \$12.

Relative sizes of some fees are questionable—The relation between some of the fees also appears to be out of proportion. For example, a \$10 athletic fee and a \$3 library fee seem rather out of proportion in an educational institution catering to a student body possessing limited financial resources. On numerous occasions the survey commission noted the meagerness of the institutional libraries which was explained as due to the limited resources of the institutions and of their student bodies. A compulsory fee of \$3 for the library and \$10 for athletics hardly seems consistent under these conditions.

All schools should allow prior registration and payment of fees by mail or in person.—Jonesboro is the only institution which reports that it allows prior registration in person or by mail. Apparently the advantages of mail registration in the distribution of clerical work and the assignment of classes is little realized among the State institutions.

All fees should be definitely allocated in the accounting records.—Many of the special fees such as the one for the library constitute merely additional fees for which no provision is made in the account-

ing records. The fee is not credited to the particular activity for which it was collected. Special purpose fees can be justified only if the fees are definitely allocated to the purpose for which they are assessed and collected, otherwise they are taken from the students under false pretenses.

Fire and Tornado Insurance

The State of Arkansas does not carry its own insurance by paying premiums into a common State insurance fund. This is wise in view of the legislative violation of funds of this kind that experience in other States shows to be probable. The State higher educational institutions all have fire insurance coverage and all report tornado coverage except Russellville and Magnolia. The amounts of insurance carried bear no definite relationship to the reported building and equipment values but do appear adequate except at Magnolia, Monticello, and Russellville. On the basis of the character of the buildings, the physical location in relation to fire protection, and reported values these institutions do not seem to have the coverage needed. A review by a single agency of all insurance carried by all institutions would be profitable.

Service Enterprises

The term "service enterprises" is employed to designate those enterprises rendering a service on a more or less self-supporting basis. In this report service enterprises include dormitories, dining halls, bookstores, laundries, and farms.

Dormitories and dining halls.—Jonesboro houses and feeds 62 men and 56 women out of an approximate student enrollment of 400; Russellville 90 women and 145 men out of an approximate 300; Magnolia 289 men and women out of 425; Monticello 300 men and women out of 300; Conway 135 women out of 600; Arkadelphia 100 women out of 250; and the university 140 men and 120 women out of 1,800, a grand total of 1,447, or 35 per cent, of an approximate student enrollment of 4,075. The gross receipts from these dormitories and dining halls exceed one quarter of a million dollars each year, more than one-fourth of all income from institutional sources. Their operation, therefore, represents one of the major business responsibilities of these institutions and in the opinion of the survey commission should be under the general supervision of the principal business officer. The business manager of the university has primary responsibility for dormitories and dining halls, but in the other institutions there exists only an indirect or staff relationship.

As explained elsewhere in this report, the living conditions in these dormitories are generally bad, much below the standards which should exist, and while the food may be of good quality, the kitchen, dining halls, and general surroundings, with a single exception, detract materially from the pleasure of its consumption. Although the housing and eating facilities are uniformly poor there exists no uniformity in the charges made. Room rent ranges from \$3 per semester to \$2 per week and board from \$12.50 to \$22.50 per month. The most appetizing food and most pleasant surroundings were found at the institution charging least for board and paying its dining hall manager the most, an outstanding example of the economy of competent management.

There exists no standard by which the adequacy of room and board charges may be measured. It is clear, however, that the financial resources of the general student body will not permit a charge which would include interest and return on capital investment. The State must provide the buildings and equipment or they must be secured from private benefaction. However, even though the State should in Arkansas assume some or all of such items as light, heat, water, repairs, and general overhead, the accounts of the institution should indicate what the actual expense is and the share that is borne by the State. The room and board charges should cover all direct expense for care and supervision of dormitories and for raw food, its preparation and its serving expense.

The actual practice at the several Arkansas institutions varies widely. Magnolia has no segregation of dormitory income and expense; Monticello combines the income and expense of dormitories, dining halls, and health service; Conway combines the dormitories, dining halls, and farm; and Russellville credits dormitory receipts to general income. Comparisons are impossible with such a diversity of practice. It may be concluded, however, that, in general, the dining halls are meeting their direct expenses and the dormitories are not. In the effort to meet expenses the plants are being badly run down. The day of reckoning is certain to be expensive. One institution is closing an excess of direct income over direct expense to general institutional funds in spite of the fact that its dormitories need new floors, plaster, paint, and decent plumbing.

Bookstores.—Each institution has a bookstore on its campus but all are not operated by the institutions. The university has leased space to a private individual and incidentally has allowed the faculty club to lease a part of its space for a cafeteria. Private enterprise should be excluded from institutional grounds. The institution should not have activities on its campus over which it does not have control. This does not mean that the university need be without a bookstore or a cafeteria for the presence of these two private enter-

prises is certain evidence that they are making a profit. Obviously if there were no profits these private enterprises would have long since disappeared. The university can save these profits for itself and its student body if it is willing to employ part of the income of the bookstore for the needed business talent to direct this project. At Pine Bluff the president is operating a bookstore as a personal private venture. This should be undertaken as a college and not as a private venture.

Bookstores, like other service enterprises under institutional management, can be defended only on the grounds of service and savings to the student body and to the institution. Three institutions are crediting bookstore profits to athletics, two to general income, and one to general extension. The soundness of these practices is questionable since the objective of an institutional bookstore is to serve rather than to exploit the student body.

Laundries.—The university is the only institution operating a laundry. It is self-supporting on the basis of direct expense and is financed by a fixed monthly charge against dormitory students. At Arkadelphia the college collects \$5.50 per term from each dormitory student and contracts with an outside laundry. At many of the other institutions with extensive dormitory facilities, sanitation and general living conditions would justify an institutional laundry. As an alternative the Arkadelphia plan should be followed.

Farms.—The university and the junior colleges need and operate their farms as part of the educational program. Although the products of these farms are by-products and constitute primarily a reclaiming of a part of necessary teaching and research expense there should be a separation of income and expense from other departments. With few exceptions the actual income is known but the expense is not.

The operation of farms at the State teachers colleges is only secondarily educational and their chief justification must be profitable operation. It therefore becomes essential that the income and costs of these farms be known and checked. At Conway the farm income and expense are merged with the dining halls and dormitories, and at Arkadelphia the expense is paid from general funds and the produce is given to the dining hall without charge. This mixing of separate ventures should be discontinued, and the accounts should reveal the extent to which each is paying its way.

Student Activities

Unfortunate experiences have demonstrated to many institutions of higher education the desirability of a complete financial control of student activities, such as the college publications, athletics, literary

societies, the junior ball, and other social functions. The financial obligations of these student activities are not the legal responsibility of the institution but an inescapable moral responsibility does exist. Many institutions have considered that financial supervision of student activities affords an excellent opportunity to instruct students in the proper principles of business management.

All of the Arkansas institutions exercise some financial supervision over student activities and all handle athletic funds through institutional channels, but with two exceptions. Supervision of other student activities is limited to occasional and apparently unsystematic postaudit and direction by individual faculty members or faculty committees.

Gifts

During the past five years the gifts to the Arkansas institutions, if we except those to the Pine Bluff institution, have totaled only a few dollars over \$51,000. Of this amount \$49,000 was received by the junior college at Jonesboro. Arkansas has many citizens with wealth who are giving to charity, churches, and private institutions. Their interest should be enlisted in public higher education. None of the State institutions has sufficient funds for operation; student loan funds, scholarships, and prizes are conspicuously absent; and many buildings for student living quarters and for social and recreational purposes are needed. The responsibility of wealthy citizens to their State educational institutions is not fully met by the payment of taxes. They have a stake as well as a responsibility in providing the best educational facilities in Arkansas for all capable students who are willing to take advantage of them. The Arkansas institutions merit benefactions and they should not hesitate to voice their need.

Chapter VIII

General Extension Service

A relatively small proportion of the population of a State may personally attend its colleges and universities. Most of those who do are comparatively young. Many more people in a State need and desire instruction that the higher institutions are capable of offering than can enroll in resident classes. Youth has no monopoly on either the wish or the ability to learn. These facts account for the development of extension work.

The devices and agencies utilized in educational extension instruction are many and the thoroughness of the instruction runs the entire range from occasional lectures or showings of lantern slides to continuous postgraduate work for professional men. The means most commonly employed are correspondence courses and extension classes. Courses for and without college credit are carried on by both means.

Attention has already been called to the agricultural and home economics extension that is a part of the work of the University of Arkansas carried on in cooperation with the Federal Government and as one unit in a nation-wide system. The university has also taken the lead in the development of other forms of extension activity in the State. Through both the class and correspondence methods it has for many years provided opportunities to the citizens of Arkansas to secure instruction in a wide range of subjects.

As other institutions in the State, both public and private, may undertake to conduct extension work duplication of effort and in some cases expensive competition for extension students will naturally arise if two or more institutions offer work in the same community. Thus the four State junior colleges, the two State teachers colleges, and the university may all tend to extend their campuses over the entire State and produce an overlapping of territory and effort that will be extremely wasteful of time and money.

In view of these developments in other States and to a certain extent in Arkansas the general extension division of the University of Arkansas undertook to insure cooperation by means of an agreement which would utilize the educational resources of all the insti-

tutions, make wasteful competition impossible, and establish definite standards for college credit work by extension acceptable to all the institutions of the State and to out-of-State institutions to which Arkansas students might wish to transfer. This was accomplished in large part through the hearty cooperation of the entire group of State institutions with the exception of the State teachers college at Conway. This institution refused to meet the standards set up or to participate in the system and continued to conduct its extension activities independently of the other institutions.

Briefly the state-wide extension service was set up under an arrangement by which the university appointed as instructors, both for class and correspondence work, members of the staffs of the other institutions that could qualify under the high standards maintained by the university for members of its own staff whom it permitted to carry on such work. In fact, for extension purposes qualified members of the staffs of the other institutions become members of the university staff. Upon application for class or correspondence work received by the university extension service, either directly or through one of the cooperating institutions, the director of extension designates the instructor best qualified to carry on the work wherever he may be found, in most cases if one is available, in the institution nearest to the point where the work is to be carried on. The correspondence lessons are prepared under the direction of the university hence all instructors, whatever their institutions, conduct the same course in any given subject. Further the university handles the clerical and recording demand for all correspondence students thus relieving the local institutions of this responsibility and expense. Uniformity is thus insured.

The credits earned in extension carried on under this system are accepted by all the institutions of the State and the high quality of the work is recognized by the National University Extension Association, the authoritative national body in this field. It should be noted that this system embraces and regulates cooperatively only extension work carried on for college credit. In 1928-29 about 1,600 students were enrolled under the system.

The fact that the State teachers college at Conway did not enter this cooperative system requires that its extension work be examined in some detail. In 1928-29 approximately 4,000 students enrolled in the extension work carried on by this State teachers college. Was this large enrollment due to more effective methods, to low standards, to the level of work offered, or to other causes?

Examination of reports from individual members of the staff engaged in conducting extension work for the teachers college in 1928-29 shows that 39 teachers were carrying the instruction of this

large and widely scattered group of students. This staff consisted of 19 part-time extension lecturers, 11 teachers engaged part time in grading correspondence lesson papers, and 9 teachers engaged part time in teaching eighth grade and high-school work to classes. Sixteen of the nineteen extension lecturers gave less than one-tenth of their time to extension duties, none gave more than one-fourth time to this work. Of 11 men who gave from 5 to 7 per cent of their time to extension work, 8 received from \$100 to \$199, one received between \$200 to \$299, and the median was \$266. Of the two women who gave the same percentage of time to the work one received between \$100 and \$199 and the other between \$300 and \$399.

Table 27 shows the occupations of these teachers to vary from housekeeping to superintending city school systems. Fifteen of the 19 are city superintendents, county superintendents, or school principals.

TABLE 27.—Noninstitutional occupation of extension teachers—Conway

Occupation	Frequency	Occupation	Frequency
Superintendent city schools.....	8	Principal of junior high school.....	1
County superintendent.....	3	Principal of grade school.....	1
Instructor.....	1	Principal of ward school.....	1
County agricultural agent.....	1	Housekeeping.....	2
Principal of high school.....	1		

Eleven of the 19 teachers had no regular college teaching experience and 4 had about one year. The 19 extension teachers, referred to were distributed to departments as follows: Agriculture, 1; art, 1; biology, 1; education, 11½; English, 2½; history, 1; health, 1; total, 19.

After a study of the facts just presented, it should require no extended argument to demonstrate that the extension work at Conway must necessarily be superficial. One teacher, in a trivial percentage of his time, can not properly instruct and supervise the study activities of 100 students. Furthermore, the lack of regular college teaching experience on the part of most of those engaged in extension work at Conway is sufficient to raise the question of their capacity to present work of college grade. Finally, the fact that most of these extension teachers are public-school administrators, principals, and superintendents, giving this instruction for pay to members of their own teaching staffs, raises a serious ethical question. Do teachers enroll in these classes because they desire instruction in work of college grade or because it is announced that such classes are to be opened under the tutelage of their superior officers?

The logical solution of the problem is to make extension work in Arkansas truly state-wide. This would seem to be most easily

accomplished by Conway entering the so-called state-wide service now maintained by the other State-supported institutions of higher learning with central offices at Fayetteville.

The commission earnestly recommends the further development of a truly state-wide extension service. It is not, however, convinced that this service should center so entirely in the university. The commission does not question that the direction of general extension work is lodged in most competent hands in the person of the university director of general extension. However, there is no question in the minds of the survey commission that great advantages would accrue to the extension work through centralization of its offices at the geographical center of the State.

The rapid development of the northeast, southeast, and southwest sections of the State has already been discussed at length in other sections of this report. There seems no convincing or sufficient reason for centralizing this state-wide extension service in the northeast portion of the State. The university has already concentrated its agricultural and home economics extension offices at Little Rock. In establishing the offices of the state-wide general extension service at Little Rock no question is involved of securing a great physical plant representing an investment of hundreds of thousands of dollars. Little additional expense would be incurred; indeed, the citizens of Little Rock should be willing to furnish the housing required in return for the advantages and opportunities that would accrue to the people of the city.

Two arguments which have been advanced as reasons for locating the central extension offices at Fayetteville have been considered by the survey commission and found unconvincing. The first of these arguments emphasizes the present fact that the extension director is nearest the largest group of extension instructors, namely, those coming from the university faculty. In this day of rapid communication such proximity is negligible for the purposes of correspondence and extension work. Even if this were not true, the development of extension work as a truly state-wide service will very soon nullify the fact, i. e., in a very few years Little Rock will be nearer a greater number of extension teachers than will Fayetteville. The entrance of Conway into the system will make a material difference in this respect immediately.

The second argument advances the use of the university library as a reason for continuing the extension offices at Fayetteville. There appears to be no good reason why the university library as well as the libraries of all the other schools may not be used to the same extent in extension work even though the central offices are at Little Rock. However, the commission does not at present see

how any of the libraries may be extensively used for extension work without impairing resident instruction. None of the higher institutions at present has a sufficiently large library for the types of work attempted.

The establishment of the headquarters of a central general extension service at Little Rock rather than at the university is supported by other considerations. The refusal of the State teachers' college at Conway to participate in the present system was in part based upon one sound reason. The system includes only extension work for credit; it makes no provision for the type of helpful, noncredit study and guidance opportunities that under Arkansas conditions would prove most valuable to Arkansas. The university is not especially interested in promoting such work in the class and correspondence fields and by informal methods of instruction. The State teachers college at Conway has demonstrated that there is a great demand in Arkansas for adult education in the form of extension work which should not carry college credit. This demand is undoubtedly indicative of a still greater unexpressed need for such training.

The existing demand is obvious, since in 1928-29 Jonesboro was providing, through extension instructors, noncredit work to 5 men and 3 women in education and to 60 men and 75 women in arts and sciences. In the year 1927-28 Fayetteville was giving instruction to 22 men in engineering in extension noncredit courses. In 1928-29 Conway was giving training in extension noncredit courses to 372 men and 949 women in the fields of education and teacher training.

One great and as yet undeveloped phase of the proposed central extension work at Little Rock, therefore, should be the offering, under thoroughly trained and competent teachers, of as wide a variety of courses in adult education as the demands of the people and the needs of the State indicate to be wise.

Transferring the central office to Little Rock need imperil in no way the present recognition of the extension work by the National University Extension Association, for it need disturb in no way the arrangements with reference to standards of instruction and appointment of the extension staff for credit work.

It is proposed and recommended, therefore, that a state-wide extension service be established, with headquarters at Little Rock, and that the extension work of all State institutions and of such private ones as care to participate be directed by this central office.

The central service and its director should be responsible to no single institution but to a committee or board constituted by selecting from each of the boards that control the State higher institutions one or more representatives to sit with the State superintendent of public

instruction or his delegate. This committee should act as the governing board for the state-wide extension service and should be responsible for the construction of a unified budget for the work and for its apportionment in the institutional budget requests in accordance with the proportion that other elements in their budgets bear to the total State contribution to the operation and maintenance of the higher institutions. Funds granted in the institutional budgets in accordance with the plans of the state-wide extension service budget should be made available to the director of the state-wide service and be expended by him under such controls as are in harmony with the uniform business procedure recommended for all State higher educational institutions.

Chapter IX

Standards and Practices in Teacher Training

Preceding chapters have discussed the importance of the teacher-training problem in Arkansas, proposed methods of control over teacher-training functions, recommended a unified system of business management, and urged certain definite investments in physical plant extensions. It is the purpose of this chapter to discuss, in some detail, specific aspects of the conduct of teacher-training work and to suggest certain standards of practice in connection therewith.

Central in all modern teacher training is the practice school and the control of these facilities exercised by administrators and supervisors. These officers and staff members should have such control of the practice facilities that (1) they may schedule practice classes whenever desired; (2) they may section practice classes according to needs; (3) they may otherwise direct the school for the benefit of practice classes.

When institutions maintain their own campus schools they have few problems of this nature. When public schools are used as training schools many problems may arise. Entire teacher-training programs are sometimes upset by public-school necessities. While the cooperation between the training schools and the public schools is excellent, in Arkansas, it is imperative that additional training school facilities be provided. This is especially true at Arkadelphia where the college is entirely dependent upon a small and financially handicapped school district for its practice facilities. This uncertainty of continuous and adequate training-school facilities is undoubtedly a major reason why Arkadelphia is not accredited by the American Association of Teachers Colleges.

Tables 28, 29, 30, 31, and 32 show data concerning the rank, training, experience, and work of the members of the supervisory staff. Many regular college teachers who supervise a class or two in the training schools are included hence comparisons of the institutions on this basis are unreliable.

If regular college teachers are eliminated from consideration the faculty rank, training, and experience of the remaining members of the staff are undesirably low. This condition is not peculiar to

Arkansas but is anywhere unfortunate because members of the supervisory staffs are entrusted with one of the most difficult instructional tasks in the institution.

TABLE 28.—*Length in college years of teacher-training curricula or courses of study of college grade reported*

Curriculum	Length in years						
	Fayetteville	Conway	Arkadelphia	Jonesboro	Monticello	Mag-nolia	Russellville
1	2	3	4	5	6	7	8
Primary grades (1, 2, 3).....		1 2	2-4	(?)	2	2	
Intermediate grades or (4, 5, 6).....		1 2	2-4	(?)	2	2	2
Junior high school grades or (7, 8, 9).....		1 2	2-4	(?)	2	2	2
General 2-year normal.....				2	2		
Elementary ¹ education.....	4						
Arts and science secondary school subjects.....	4	4	4				
Agricultural education.....	4			3		2	2
Home economics education (certificate).....	4	2		3		2	2
School administration dramatic art.....			4				
B. A. in education.....		4					
B. S. in education.....		4					
Public-school music (certificate).....		2	4	(?)			
Art (certificate).....		2					
Physical education for men.....	4		4				
Physical education for women.....	4		4				
Athletic coaching.....	(?)		4				
Supervision of elementary schools.....	(?)		4				
B. A.....		4	4				
B. S.....		4					

¹ Primary, L. I.

² Technical, academic, and education courses.

³ Select from 34 hours offered.

⁴ Minor, about 15 hours.

⁵ Organized athletics only.

⁶ 10 hours offered.

⁷ 1 to 3 hour courses offered.

The professional procedure of the supervisory staff in conducting student teaching shows conscientious work and a real understanding of the job to be done.

The following suggestions are offered: (1) The marking system should be uniform for all institutions. (2) More provision should be made for individual differences among training school pupils. (3) Wider distribution of practice over more subject-matter fields, and over more appropriate subject-matter fields should be arranged as soon as possible. (4) The supervisory staff should be increased at once and the college teaching load of the present supervisory staff reduced materially. This is especially necessary at Arkadelphia. (5) The directors of training in all institutions have too large teaching loads. (6) The student teachers in many schools now receive no practice in such fields as physical education and health, public-school music, and art. This should be remedied. (7) The services of a physician or school nurse should be available in each school for promoting the health of the pupils. (8) Regular teachers of demonstration lessons should be present frequently when their work is discussed by observers.

The typical number of student teachers supervised during any one class period is two except at Jonesboro, Monticello, and Russellville, where the typical number is one. The maximum number ranges from one, at Russellville, to five at the University of Arkansas. Nearly all the supervising teachers at Conway teach academic or technical subjects in connection with their supervisory duties. There is much to be said for the participation of subject-matter teachers in the supervisory activities of the training school. However, supervision of practice can not always be arranged in this way.

Table 29 shows that the number of supervising teachers having experience in their present positions before 1929-30 is relatively small.

TABLE 29.—Experience of supervising teachers prior to 1929-30

Years experience	Frequency						
	Fayetteville	Conway	Arkadelphia	Jonesboro	Monticello	Magnolia	Russellville
1	2	3	4	5	6	7	8
2 to 4	2	8					
5 to 9		1		3	3	2	3
10 or more		9					
		3	2				

Table 30 shows the maximum number of student teachers supervised per year of nine months by any one critic or supervising teacher. Nearly half of the supervisors are in charge of an excessive number of student teachers and practice pupils.

TABLE 30.—Maximum number of student teachers taught by any one critic or supervising teacher

Institution	Maximum number of student teachers	Institution	Maximum number of student teachers
Conway	26	Monticello	20
Arkadelphia	7	Magnolia	12
Jonesboro	4	Russellville	34

TABLE 31.—Faculty rank of supervising teachers

Rank	Fayetteville	Conway	Arkadelphia	Jonesboro	Monticello	Magnolia	Russellville
1	2	3	4	5	6	7	8
Professor	1	10	1				3
Associate professor		4	1				
Assistant professor	1	2					
Instructor	4	6	2		9	4	
Assistant				6			
No faculty rank		12					1

TABLE 32.—*Highest degree of diploma held by supervising teacher*

Highest degree or diploma	Fayetteville	Conway	Arkadelphia	Jonesboro	Monticello	Magnolia	Russellville
1	2	3	4	5	6	7	8
Bachelor's.....	1	9	2	4	3	1	1
Master's.....	2	9	1	1	1	3	3
Doctor's.....	2	5	1				
2 or 3 year normal diploma.....		12		1	5		
None.....		1					

Organization of student teaching.—The activities of a teacher-training institution, centering around the training school, should be definitely coordinated and administered by a competent director of training or an equivalent officer. In Arkansas institutions this coordination is secured by various officers with varying degrees of effectiveness.

In order to conserve the best interests of the student in the practice schools, not over 60 per cent of the teaching should be done by student teachers. In three institutions this amount is considerably exceeded. In all instances, however, the local community attitude appears to have remained favorable to student teaching.

Credit hours required in student teaching.—Not including the University of Arkansas, the minimum number of semester hours of credit required in student teaching for graduation from any 2-year curriculum is $2\frac{2}{3}$; the maximum $5\frac{1}{3}$; the average 4.1. The minimum requirement is made at Arkadelphia, the maximum at Conway. A reasonable standard for minimum requirements in this respect is four semester hours.

Requirements and facilities in practice teaching.—All institutions in Arkansas require student teachers to do 90 or more clock hours of practice teaching. The minimum requirement set by the American Association of Teachers College is 90 clock hours.

A minimum requirement of 30 practice pupils for every 18 college students to be given 90 hours of practice teaching, is met by all six institutions. Difficulties are met, however, in the distribution of the total number of practice pupils among the several grades. Obviously a prospective high-school teacher of science should not be required to do his practice teaching in fifth-grade arithmetic.

Fayetteville has no practice pupils in its fourth, fifth, and sixth grades. There is a deficiency of pupils in other grades.

Arkadelphia has no campus school and little or no administrative control over the public schools.

Conway needs more practice pupils in both campus and rural schools.

Credit hour requirements in professional education.—For 2-year curricula the maximum number of semester hours of professional work in education required for a diploma is 16 at Jonesboro, and 27½ at Conway. The minimum varies from 12 in Jonesboro to 24 in Conway. For 4-year curricula the maximum ranges from 24 at Arkadelphia to 30 at Conway. The minimum is 16 at Arkadelphia, 19 at the university, and 24 at Conway.

These variations indicate need for cooperative curriculum revision.

Lack of uniformity in terminology.—The heterogeneous terminology existing also suggests the need for cooperative revision. A basic course such as "observation and student teaching" is listed as "directed teaching," "student teaching," "methods, materials, and directed teaching," "cadet teaching," "practice teaching," "observation and lesson plans," "rural school practice teaching," etc. Only three courses are given the same titles in more than three institutions. A fertile field for duplication of content is thus provided.

A state-wide curricular revision program.—When the State department of education is properly staffed and given adequate powers one of the first projects which it should initiate and foster is a state-wide curricular revision program for the teacher-training institutions of Arkansas. West Virginia has recently shown the possibilities of a cooperative curricular revision in this field. Such a program would involve the active cooperation of the staff members of all institutions that train teachers. There should be a central committee and subcommittees in the various subject-matter fields. Outside qualified experts could help. The findings should be binding upon all institutions. The revision program should be repeated from time to time according to needs.

Some of the studies which should be undertaken in such a state-wide revision program are: (1) The actual job of the teacher in the public school, (2) combinations of subjects to be taught, (3) subjects which will best prepare for each type of teaching work, and (4) uniform curricula and terminology.

Not only would the curricula of the several institutions be improved but the staff members would profit by gaining a new interest in the improvement of the courses they teach. All the advantages of mutual endeavor would be secured.

The tendency for the teacher-training institutions to extend their curricular offerings into fields for which they lack the resources and facilities can be checked only through a State system of control which not only regulates the actual offerings of the colleges but specifies the requirements which must be met for each differentiated type of certificate. "Blanket" certification which permits one type of training to function in all teaching fields should be abandoned.

The curriculum should emphasize physical education and health. It has been well established that remediable physical defects, unhygienic and insanitary living conditions, and general ignorance of the laws of health are more characteristic of country people than of city dwellers. For this reason the rural teacher, more than any other, needs training in physical education and health.

The 4-year curriculum should also emphasize industrial art, fine arts, and music. These subjects contribute more to the effectiveness and happiness of living in a State like Arkansas than ancient languages and advanced mathematics.

The requirements in student teaching and other professional courses should meet accepted standards, and subject-matter courses should be selected and adapted with the primary object of meeting the actual needs.

In summary, certain conclusions bearing on the type of curricula in two or more institutions now offered in the institutions that train teachers in Arkansas may be offered.

(1) Curricula for teachers should be based on the specific activities of teachers in service, and should be determined by the requirements of the position to be filled. For example, prospective teachers in 1-room rural schools will require subject-matter training in most of the subjects taught in all elementary grades, and should be given courses especially adapted to their work.

(2) The training school is the focus at which all training of the teacher should converge.

(3) Nearly all courses in 2-year curricula should be prescribed.

(4) Emphasis should be placed in teacher-training curricula upon the development of (a) personality traits, (b) ability to make effective community contacts, and (c) professional attitudes and habits in the teacher.

(5) Courses of study should be sequential and continuous in organization.

(6) Review courses in elementary subjects, offered for college credit should be eliminated as soon as practicable.

(7) The program undertaken should not exceed the facilities available for doing work. The objectives of most of the institutions of Arkansas are much too broad for the facilities they now possess.

(8) Terminology of courses should be made more uniform and more meaningful, so that some accurate indication of the content may be afforded.

(9) Means should be set up to provide for a continuing revision of existing courses and the provision of additional new ones. State-wide curricular revision programs should be initiated by a properly staffed State department of education, and such programs should be undertaken from time to time in accordance with changing needs.

(10) Closer coordination of sub-matter and professional education courses is desirable. Neither field should be stressed at the expense of the other. Courses in education should function in a practical way and subject-matter courses should be well rounded and carefully selected with a view always to the needs of public-school teachers.

(11) Prospective high-school teachers typically should be trained for teaching three subject-matter fields, and should be placed in teaching positions in the fields for which trained.

(12) The University of Arkansas should extend the fifth year's offerings for principals, supervisors, superintendents, and high-school teachers as rapidly as public-school needs justify.

(13) Present study undertaken by some of the institutions of the courses in professional education and their proper selection, sequence, and emphasis should be continued to the end that such courses be made to bear more directly upon public-school teaching problems.

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Chapter X

Uniform Standards and Practices

Preceding chapters have called attention to the desirability and recommended the adoption of certain standard practices and procedures by the higher institutions of Arkansas. Thus it has been recommended that common study be made under the leadership of the State department of education of teacher demand and supply and of the curricular problems of teacher training. It has been suggested that a committee representing all the public higher institutions study and recommend for adoption a common system of tests and measurements of students and a uniform student record card. Cooperative study of the opportunities for employment in intermediate level occupations and of curricula designed to provide training for these occupations has been recommended. It appears that unified personnel records and occupational curricula should be supplemented by a state-wide employment or placement service conducted cooperatively by the institutions. A uniform accounting system supplemented by uniform business forms and practices is essential and cooperative purchasing of supplies and materials used by the various institutions is a measure that should lead to economy and better service. Further, it is recommended that the institutional systems of fees be so adjusted as to make them more nearly comparable and uniform as between services of equal extent and quality.

It is the purpose of this chapter to consider the training, experience, salaries, and management of the members of the teaching staffs of the institutions from the standpoint of the desirability of introducing among the higher institutions of the State a larger degree of uniformity of standard with reference to these matters. This involves presentation of facts concerning the present staffs of the institutions.

It is desirable to consider the staffs of higher educational institutions from two standpoints; first, from the standpoint of the personal preparation for and attitudes toward the work of their profession that characterize the individual members of the staff; and, second, from the standpoint of institutional management of the staff shown by such matters as the amount of work demanded of teachers, the

range and application of salary scales, and other conditions of work that are provided by the institutions. These two aspects of staff employment are intimately related, but such division of treatment serves to emphasize the fact that for certain matters the individual teacher must bear major responsibility, while in other respects the institution is primarily responsible.

The individual teacher is largely responsible for his own training and for his professional relationships that are not directly a part of his task as a member of the institutional staff. The institution is responsible for the selection of staff members with the amounts and types of training desired and for the provision of opportunities which will enable staff members to establish professional relationships that will contribute to the professional reputation of the institution. The present situation in regard to the training and professional relations of staff members in Arkansas institutions is shown by Tables 33, 34, 35, 36, and by the comment thereon.

Number of teachers employed by each institution.—Table 33 shows the number of teachers from each institution that filled out individual staff inquiry blanks provided for the purposes of this survey. Arkadelphia and Monticello have the smallest faculties. Jonesboro, Monticello, Magnolia, and Russellville have teachers engaged full time in high-school teaching. These same schools also have numerous teachers who give part time to high-school teaching and part time to college teaching.

TABLE 33.—*Number of teachers reported by each institution on individual staff inquiry*

Institution	Special subjects—music, etc.	Training school	Full-time high school	Part-time college, part-time high school	Full-time college
1	2	3	4	5	6
Jonesboro.....	3	6	5	10	3
Monticello.....			3	6	6
Magnolia.....			5	8	8
Russellville.....			4	2	16
Arkadelphia.....		2			13
Conway.....		6			31
Fayetteville.....	25	1		7	115

Highest degrees held by faculty members.—Table 34 shows the scholastic preparation of the faculties of the seven institutions of higher learning in Arkansas. Of the teachers engaged in full-time college teaching 14 have no degrees, 24 have bachelors' degrees, 112 have masters' degrees, and 55 have doctors' degrees.

TABLE 34.—*Highest degrees held by teachers*

Institution	Highest degree							
	No degree				Bachelor's			
	Full-time college	Part-time high school-college	Full-time high school	Training school	Full-time college	Part-time high school-college	Full-time high school	Training school
1	2	3	4	5	6	7	8	9
Jonesboro.....	1	2	3	1		1	2	4
Monticello.....		1			3		2	
Magnolia.....		2			2	5	5	
Russellville.....					4	3	4	
Arkadelphia.....					3			2
Conway.....	3				7			4
Fayetteville ¹	10				5		1	
Total.....	14	5	3	1	24	9	14	10

Institution	Highest degree							
	Master's				Doctor's			
	Full-time college	Part-time high school-college	Full-time high school	Training school	Full-time college	Part-time high school-college	Full-time high school	Training school
1	10	11	12	13	14	15	16	17
Jonesboro.....	1	7				1		
Monticello.....	3	5	1	1				
Magnolia.....	6	1		1				
Russellville.....	12							
Arkadelphia.....	6				4			
Conway.....	22			2	3			1
Fayetteville ¹	62	7			48			
Total.....	112	20	1	4	55	1		1

¹ Teachers of special subjects such as art, music, military science, athletics and physical education, dramatic art, and engineering shop.

The modal degree, therefore, is the master's degree. Most of the doctors' degrees reported are held by members of the university faculty. Jonesboro employs, relatively, the greatest number of non-degree teachers.

Amount of professional training possessed by faculty members.—Faculty members who are engaged in preparing teachers should have a considerable amount of professional education training. A commonly assigned reason for their lack of teaching technique is that college and university teachers are deficient in professional training. Even a college teacher must know more than his subject. He must know the boys and girls, or men and women, whom he is seeking to develop, what they are now and how they "got that way"; he must know what his subject can contribute to their develop-

ment and how it should be presented to insure the maximum development in the desired direction. If it be accepted that work in professional education gives teachers these things and that they are not likely to be acquired in any other way by college teachers, Table 35, which shows the professional education training of the institutional staffs, would indicate rather serious deficiencies in this respect in some institutions of the State. However, outside the field of teacher training, professional work in education courses is not generally found in college faculties. The chief significance of the table, therefore, lies in situations where teacher training is a major function of the institution; from this restricted viewpoint the Arkansas institutions show up relatively well.

TABLE 35.—*Professional training of each faculty*

Institution	Number of teachers, with number semester hours of professional education				Median number of semester hours of professional education—entire faculty			
	Straight college	College and high school	Straight high school	Training school	Straight college	College and high school	Straight high school	Training school
1	2	3	4	5	6	7	8	9
Jonesboro.....	1	1			15	16	25	31
Monticello.....					25	37	35	60
Magnolia.....		1			25	15	15	60
Russellville.....	3		1		33	15	30	
Arkadelphia.....	2			1	15			15
Conway.....	5				27			42
Fayetteville.....	26				5			

¹ 1 only.

² 3 in music, 2 in social science.

Subject-matter preparation of teachers.—The teachers of each institution are classified according to their possession of (1) a major, (2) a minor, (3) a major and minor, or (4) neither a major nor a minor of preparation in the field in which they were teaching. Judged by this standard, in general, the teachers of the higher institutions of learning in Arkansas are very well placed. Practically all are teaching in fields in which they have had college or university training to the extent of at least a major (30 semester hours). Several report only a minor (15 semester hours). A very few are teaching in fields in which they have no formal preparation.

The character of an institutional staff may be measured in part by the association of its members with professional and learned societies and by their productiveness as shown by publications of various kinds. In order to determine the facts in regard to these matters staff members of the Arkansas institutions were asked to list both organization relationships and the nature of their publications.

The following organizations were more or less arbitrarily selected from a much larger number in which Arkansas college teachers reported office or membership held. It is believed that the organizations selected are numerous enough to constitute an index of the extent to which the faculty members have received scholastic or professional honors, or have shown zeal in the effort to advance the cause of education.

These organizations are divided into three groups:

Group I.—(1) Gamma Sigma Delta; (2) Phi Beta Kappa; (3) Phi Delta Kappa; (4) Phi Kappa Phi; (5) Phi Upsilon Omicron; (6) Pi Gamma Mu; (7) Sigma Xi; and (8) Tau Beta Pi.

Group II.—(1) American Association for the Advancement of Science; (2) American Academy of Political and Sociological Science; (3) American Chemistry Society; (4) American History Association; (5) American Home Economics Association; (6) American Mathematics Association; (7) American Society of Civil Engineers; (8) Botanical Society of America; and (9) National Council of English Teachers.

Group III.—(1) National Education Association and (2) Arkansas State Teachers Association.

Upon the basis of this classification all institutions show a very satisfactory proportion of staff members participating in the associations represented by Groups I and III. The four junior colleges and the two State teachers colleges do not, however, have a large enough number of their staffs participating by membership in the organizations represented by Group II to indicate the lively interest in their subject-matter fields that should be expected of college teachers.

Publications.—Another index of the growth and leadership of faculty members is furnished by the extent to which they have published material in their fields.

Table 36 shows that Jonesboro and Magnolia report no publications. The information concerning the publications of the university staff was not available in the form used in the table. However, because of the work of the experiment station, the extension service, and the engineering college, the number of publications issued by the university staff shows excellent productivity in these fields. In other divisions of the university the staff shows much less productive activity.

TABLE 38.—*Publications written by faculty members*

Institution	Publications reported ¹										
	Books				Bulletins			Articles			
	1	2	3	4	1-2	3-4	5	1-3	4-6	7-9	10
1	2	3	4	5	6	7	8	9	10	11	12
Monticello.....						1		3			
Russellville.....								2			1
Arkadelphia.....				1				2	1	1	
Conway.....	1							2			

¹Jonesboro and Magnolia report no publications.

Although, as has been already pointed out, individual staff members may be regarded as primarily responsible for their own training and professional relations, the institutions are not without obligations with respect to staff qualifications quite apart from and in addition to institutional functions in selection and employment of members of the staff. Institutions may so overload the members of the faculty with work that there is no opportunity for personal study, participation in professional organizations, and for productive and creative activity. Institutions may have such low salary schedules that teachers with desirable training, scholarly interests, and professional attitudes may not be willing to accept employment, or, if they do so, may be so burdened by economic pressures that their personal ambitions and initiative are crushed. Institutions may employ staff members for so many months in the year and leave them so little freedom that they have no opportunity to renew their vision and replenish their vigor by outside contacts and study during the summer months or at other periods. Tables 37, 38, 39, and 40, supplemented by comment and additional descriptive material, serve to present the situation in Arkansas with respect to teaching loads, salary standards, and other aspects of staff management.

That the teaching loads of staff members do not on the whole exceed standards that are generally regarded as desirable is evident from Table 37. The loads shown are heavier for Jonesboro, Monticello, and Magnolia because of the large amount of high-school work done in those institutions. Three hundred student-clock-hours is regarded as a normal teaching load for college teachers.

TABLE 37.—*Teaching loads*

Institution	Median student-clock-hour load	Institution	Median student-clock-hour load
Jonesboro.....	425	Arkadelphia.....	262
Monticello.....	425	Conway.....	256
Magnolia.....	370	Fayetteville.....	250
Russellville.....	260		

Median salaries paid.—Table 38 shows the salaries paid to the members of the staffs of Arkansas institutions upon the whole to be very low. The commission marvels that such high-type men and women as in general compose the faculties of Arkansas institutions of higher learning can be secured or held at such low figures.

The salary scale is lowest at Jonesboro, probably because considerable funds which normally should find their way to salaries have been used for other purposes. Particularly undesirable are the extremely low salaries paid training-school teachers at Jonesboro and Arkadelphia. If these teachers are not worth more than they are being paid they are expensive at any price.

TABLE 38.—*Median salaries paid*

Institution	Median salaries				
	Straight college	College and high school	Straight high school	Training school	All types
1	2	3	4	5	6
Jonesboro.....	\$1,812	\$2,062	\$1,540	\$1,000	\$1,667
Monticello.....	2,000	2,000	2,375	3,625	2,125
Magnolia.....	2,000	1,812	1,875	2,375	1,900
Russellville.....	2,260	1,875	1,875	1,625	1,920
Arkadelphia.....	2,556			(1)	2,530
Conway.....	2,360			1,906	2,260
Fayetteville.....	3,018				3,018

¹ Less than \$1,000.

² 67 full-time teachers.

Relation of salaries to training.—In general it is expected that increased training will be rewarded by increased pay. Table 39 shows that this expectation is realized in some Arkansas schools but not in others. The data of Table 39 include only teachers who are giving full time to college work or part time to college and part time to high school.

TABLE 39.—*Relation of salaries to training*

Institution	Median salaries paid to those with—			
	No degree	Bachelor's degree	Master's degree	Doctor's degree
1	2	3	4	5
Jonesboro.....	\$2,000. 00	\$1,875. 00	\$1,688. 00	\$2,375. 00
Monticello.....	2,125. 00	1,875. 00	2,125. 00	.....
Magnolia.....	1,125. 00	1,875. 00	1,925. 00	.....
Russellville.....	.....	1,625. 00	2,125. 00	.....
Arkadelphia.....	.....	1,312. 00	2,583. 00	2,875. 00
Conway.....	1,875. 00	1,875. 00	2,875. 00	2,625. 00
Fayetteville.....	3,375. 00	2,625. 00	2,475. 00	3,417. 00

At Jonesboro a decidedly undesirable trend is noticeable. The median salary for teachers with no degree is \$2,000, for those with a bachelor's degree \$1,875, and for those with a master's degree \$1,694. Similar situations prevail at Monticello and at Fayetteville.

Relation of salary to experience.—In general it is expected that increased experience shall be rewarded by increased salary. For full-time college teachers this trend is apparent for all schools with a slight exception in the case of Conway, as is shown by Table 40.

For part-time college and part-time high-school teachers added experience is not reflected in more pay at Jonesboro, Magnolia, and Russellville.

Low salaries paid to women.—Another curious fact which should receive consideration is the pay received by the women members of Arkansas faculties. Of 91 women teachers reporting in Arkansas institutions of higher learning but three receive pay in excess of the median salary paid by the institution by which they are employed.

TABLE 40.—*Relation of experience to salary*

Institution	Median salaries paid for varying amounts of experience									
	0 ¹		1-8		9-16		17-24		25	
	1 ²	2 ³	1	2	1	2	1	2	1	2
	3	4	5	6	7	8	9	10	11	12
Jonesboro.....	.....	\$2,125	\$1,810	\$1,690	.....	.....	.....	.....	.....	.....
Monticello.....	\$1,625	1,875	2,375	2,250	.....	.....	.....	.....	.....	\$2,375
Magnolia.....	1,875	1,810	1,940	1,625	\$2,875	.....	.....	.....	.....	.....
Russellville.....	1,375	1,875	1,875	.....	2,430	\$1,625	.....	.....	.....	.....
Arkadelphia.....	2,312	.....	2,625	.....	2,875	.....	.....	.....	.....	.....
Conway.....	.....	.....	2,260	.....	1,975	.....	\$2,875	.....	.....	.....
Fayetteville.....	2,125	.....	2,475	.....	3,380	.....	3,250	.....	\$4,375	.....

¹ Experience in years.

² College teachers.

³ Part-time college, part-time high-school teachers.

It is impossible and inappropriate in a report upon the higher educational system of an entire State to consider in detail all the elements of staff management that affect the opportunities provided to staff members to maintain or improve their academic and professional qualifications. However, no feature of such management is more generally neglected in Arkansas institutions than that of provision for staff absence from the institutions for sufficient periods to enable members of the staff to improve themselves by further study and wider contacts. The policies of Arkansas institutions that are of special importance in this connection are those that determine practice in prescribing periods of annual service and in allowing official leave for study.

It is the usual practice in the junior colleges and teacher-training institutions of Arkansas to require teachers in the regular sessions to continue teaching for the summer session, thus leaving them no opportunity or a very brief opportunity to go away for further training themselves. Further, during the past five years only six leaves of absence with pay have been granted by the entire group of higher institutions. Two of these, at full pay, were for the brief period of two weeks each. Four, two at full pay and two at half pay, were for periods of from two to six months. The provisions of Arkansas law which it is stated are responsible for these conditions should be modified.

Institutions in other States that operate upon the quarter plan require three quarters of work each year with one quarter free for study, writing, or recuperation. In most of these institutions the free quarter may be taken at any time when the schedule of teaching may be arranged to permit absence, thus making it possible for the teacher to attend a fall, winter, or spring quarter in another institution. In other institutions four quarters of leave may be accumulated by teaching 12 quarters. This permits an entire year of absence with pay. Still other institutions provide for some form of sabbatical leave whereby a year of absence at full or half pay is permitted after six or seven years of service. The usual vacations of from two to three months each year are allowed in these institutions without affecting the privilege of sabbatical leave.

Arkansas higher institutions are seriously in need of some more liberal provision for leave both in order to encourage staff members to strive for further growth and in order to compete for well-trained men with institutions that afford more desirable conditions of employment. No doubt the finances of the State will not permit competition with the more wealthy States upon the basis of salaries and perhaps Arkansas can not in the immediate future offer as favorable opportunities for leaves of absence. However, a state-wide policy

should be considered and adopted which will look to better compensation and opportunity for the teachers in the institutions of higher learning.

Although all the factors that enter into the rewards of college teachers are not available for consideration, the commission believes that the evidence presented by this chapter in regard to degrees, the relationship of salaries to training, and to experience, and the inequalities of salaries as between institutions of higher education in the State justify serious consideration. The commission, therefore recommends that a committee of the institutions attempt to devise a scientific salary schedule for the various ranks of college teachers which will more nearly represent equal compensation for similar service, training, and experience. In spite of the fact that this project will involve consideration of many factors difficult to estimate with mathematical accuracy, such as differences in cost of living, prestige of institutions, and the relative attractiveness of different communities, it is believed that many of the gross inequalities that now exist may be removed.

Chapter XI

Summary of Conclusions and Recommendations

1. The most important educational problem of Arkansas is that of coordinating the development and functions of all the State's agencies of education from elementary school to university.

2. Coordination will require some additional funds but funds for expansion of the higher educational program should be contingent upon practical evidence of willingness to subordinate institutional and local advantage to the general educational welfare of the State as a whole.

3. Needed growth of the higher educational institutions of the State is dependent upon vigorous and intelligent support of state-wide public and secondary school development. Arkansas is providing higher education to as large a proportion of its high-school graduates as is the Nation as a whole; the fact that it has nevertheless fewer college students than its social and economic condition demands and than it must have if as large a proportion of its population receives higher education as receive it in other States arises from the small proportion of its population that is receiving satisfactory high-school training.

4. The present policy of equalization of public-school opportunity through provision of State aid to local communities should be continued and extended.

5. In spite of its somewhat remote geographical location the university is rendering a truly state-wide educational service. The disadvantages of the location of the university are in part compensated for by the development of junior colleges in the northeast, southeast, and southwest, but it is highly desirable that the facilities of the university be considerably improved in order to prevent demands for large duplication of investment at other higher educational centers.

6. The junior colleges still have a function to perform in providing the eleventh to twelfth grades of secondary school education to overage pupils and to local communities during the period during which standard high schools are being developed. The commission recommends that the junior colleges be developed as intermediate schools offering continuous integrated curricula comprising the eleventh, twelfth, thirteenth, and fourteenth grades.

7. In harmony with this recommendation and with tendencies in higher education throughout the United States it is urged that the university organize its work into distinct upper and lower divisions.

8. The State is not now financially able and educationally does not need to change its junior colleges into degree-granting colleges offering four years of work beyond high-school graduation. Local demands that this be done should not be permitted to control public funds and public educational policies.

9. It is no longer a primary function of higher education in Arkansas to provide direct vocational preparation for small-farm operation. This agricultural service can be performed more effectively and economically by vocational high schools and the agricultural extension service. The major agricultural function of the higher institutions of the State should consist of preparation of those who look forward to careers as scientists, teachers, extension agents, in business related to agriculture, and in highly specialized types of agricultural production.

10. The public schools of Arkansas do not have an adequate number of professionally trained teachers.

11. Even under present low standards of teacher certification the teacher-training institutions of the State are preparing only approximately one-third the number of professionally trained teachers needed by the State annually. Funds should be provided the State department of education in order that it may determine the actual annual demand for new teachers and the work of the teacher-training institutions should be adjusted to these needs.

12. There is little hope of securing public-school teachers of the type required to raise the level of Arkansas schools to that found in progressive school systems elsewhere until the salaries of teachers are considerably increased.

13. It is essential that means be adopted to provide further training for teachers now in service. This may be done through provision of summer school facilities, through greater extension opportunities, through the development of larger school units, and through the professional leadership of the State department of education.

14. The junior colleges should be encouraged and assisted by the State department of education to make their summer schools effective agencies of teacher training.

15. The extension services of the State intended for the aid of teachers in service should be developed to the highest point consistent with expenditures that will permit improvement of the material and cultural environment of the resident work of the university, the teachers' colleges, and the junior institutions.

16. A high standard of public-school education in Arkansas is dependent upon coordinated management of the public schools and

of the teacher-training program of the State. The State department of education should be given authority and position needed to secure such coordination.

17. The character of the teaching force in any public-school system is determined in large part by the qualifications required in order to obtain licenses to teach and by the administrative enforcement of these standards in a uniform and impartial manner. In Arkansas the function of teacher certification should be exercised exclusively by the State board of education acting through a professional State department of education.

18. Under present methods of control over the specialized teacher-training colleges and the teacher-training work of the State junior colleges, discrepancies of practice, of facilities, of programs, and of management tend to be perpetuated and accentuated. It is, therefore, recommended that the present governing boards of the teachers colleges at Conway and Arkadelphia be abolished and that these institutions be placed under the control of the State board of education. Inasmuch as the institution for negroes at Pine Bluff is primarily a teacher-training institution it is also recommended that the existing board be abolished and control lodged in the State board of education.

19. For many years to come the State will be required to depend to a considerable degree upon the junior colleges for the training of a number of new elementary teachers and for the further education of teachers already in service in the districts in which these institutions are located. It is, therefore, essential that the standards, practices, and programs of these institutions, in so far as they relate to teacher training, be subject to coordination with the work of the State teachers colleges and the State program of public education. It is recommended that the teacher-training work of the State junior colleges be subject to the inspection and supervision of the State board of education for the purpose of prescribing and enforcing standards concerning the amounts and the conditions under which practice teaching is done, the nature of the training of prospective teachers and the content of courses and curricula. In order that this control may be effective it is further recommended that the State board of education be responsible for the preparation and submission to the legislature of the teacher-training budget for all the State institutions and for allocation of appropriations to the institutions under its control in accordance with institutional budgets approved by the board.

20. It is also recommended that reserve or emergency funds not in excess of \$25,000 annually be provided annually to the State board of education for the purpose of conducting studies of educational problems in cooperation with the higher institutions of the State

and to assist public higher institutions in the prosecution of enterprises or experiments related to the teacher-training program of the State.

21. The State superintendent of public instruction should be supplied with an assistant whose sole duties should be those of professional assistance and advice to the teacher-training agencies concerning problems of curriculum construction, the character of instruction, and adaptation of programs to changing social and economic conditions, and to the State superintendent of public instruction with reference to administrative action intended to improve the quality and usefulness of the teacher-training institutions.

22. It is recommended that a business officer be placed in the office of the State superintendent of public instruction who shall be charged with installing and maintaining a uniform and coordinated system of business management in the teacher-training institutions under the control of the State board of education and in the State junior colleges.

23. The position and responsibilities of the State superintendent of public instruction are such that he should be a competent, trained, professional educator not subject to political influences. It is recommended, therefore, that he be selected and employed by the State board of education under such conditions of contract as will insure reasonable continuity and permanence of tenure during effective service at a salary commensurate with his responsibilities.

24. Although only 16.5 per cent of the teaching positions in Arkansas are in high schools, 47 per cent of the teachers prepared by the university and the teachers colleges were high-school teachers. This is accounted for in part by the fact that the two teachers colleges tend to emphasize preparation of high-school teachers at the expense of their elementary teacher-training work since the university has not taken over the task of preparing the major number of high-school teachers.

25. The university should emphasize research in education in cooperation with the State department of education and in conjunction with the other teacher-training institutions.

26. The university's elementary teacher-training work should be abandoned and the preparation of very high-grade high-school teachers upon a 4-year level and the master's degree work in education should be emphasized.

27. The emphasis of teacher-training work in the junior colleges should be upon training of elementary teachers and upon summer school and extension service to junior high school teachers already in service.

28. The teachers colleges should reduce enrollment in their 2-year normal school courses as rapidly as possible and emphasize four years of training for elementary and junior high school teachers.

29. Slightly more than 64 per cent of the students in Arkansas institutions are registered for purposes other than teacher training. In all the fields of higher education Arkansas has a considerable deficit of students in training. It should have in its higher institutions more than two and a half times as many students in training for occupations other than teaching as it had in 1928-29. Many communities and regions in Arkansas economically and socially need the aid of State-supported local institutions of higher education. Approximately one-half of the students attending college in the State attend the institutions they do because they are near home and are cheaper; half of the students live at home while going to college.

30. The local junior colleges should not serve merely as educational agencies preparatory to entrance to the third year of the university, but should direct the major portion of their energies to the education of students who look forward to a maximum of two years of college work prior to entry upon some form of gainful occupation. Studies should be made to discover the demand that exists or that can be created for graduates of the junior colleges in the fields of business, commerce, trades, and semiprofessions, and curricula should be designed to provide the training required by such positions.

31. A cooperative employment and placement service for junior college graduates may well supplement the educational preparation provided by the junior colleges.

32. For the purposes of educational and vocational guidance more extensive use should be made of ability and aptitude tests, personality measurements, and other personnel records. It is recommended that a new permanent student record card, uniform for all State-supported institutions of higher learning in Arkansas, be developed, and it is suggested that similar or complementary records be kept by the public schools of the State. More careful and complete student accounting is as essential as uniform financial accounting.

33. The State's neglect of its medical school is a blot upon Arkansas and a menace to American standards of health. Public and private wealth should be contributed immediately and freely to provide new housing and adequate facilities for this service, so basic to the economic and social welfare of the State.

34. The State's investment in agricultural research at the university is repaid a thousandfold annually. The State can make no investment that will return so much in greater utilization of its resources as will liberal provision for research by the university in fields other than those of agriculture. The commission earnestly

urges that as rapidly as the resources of the State permit, the university be granted aid to develop research programs and graduate instruction in the physical and social sciences. It is suggested that funds be provided to free competent faculty members from undergraduate instruction and to provide scholarships and fellowships for able and ambitious graduate students. Leadership in the establishment of scholarly standards and ideals is a function that the university should exercise; it can do so only by a vigorous policy of participation in the educational and economic life of the State.

35. The governing board of the university should be retained as an independent body but should fully realize its responsibility in coordinating the work of the university with the activities of the other educational agencies of the State.

36. It is recommended that the junior colleges of the State be united under common control and provided with a single authoritative body to interpret their functions and relationships. In the opinion of the survey commission this single board may well be the State board of education. It is suggested that the local junior college boards be retained in an advisory capacity and for the purpose of representing the institutions to the local constituency.

37. The educational plants of Arkansas higher institutions have been seriously neglected with the exception of that for negroes at Pine Bluff. The commission wishes to emphasize that the unsatisfactory plant conditions are not in the main due to poor institutional management; within recent years it has been the uniform policy of the legislature to deny all requests for new buildings and entirely inadequate funds have been provided for repair and maintenance. It is recommended that in the future all allocated mill taxes and all institutional fees be devoted exclusively to operation and maintenance and that additions to capital investment, including major repairs and remodelling, be provided by the State through special appropriations from funds derived from sources other than the general property tax.

38. In Arkansas it is especially evident that students should secure at the higher institutions not only skill and book learning, but also improved habits and modes of living individually and collectively. Of all building obligations the obligation to provide proper standards of cleanliness, comfort, safety, and decency in the housing of students is one of the first. It is, therefore, recommended that for the purpose of improving housing facilities already in existence and of extending these facilities, the sum of \$600,000 be provided immediately, distributed approximately as follows among the institutions: Jonesboro, \$80,000; Monticello, \$80,000; Magnolia, \$80,000; Arkadelphia, \$150,000; Conway, \$150,000; Fayetteville, \$50,000. If

the institution at Russellville is retained approximately \$80,000 additional will be required.

39. Under modern conditions of instruction, use of books is the most important element in the instruction and learning of students. No higher institution in Arkansas has adequate and modern library facilities. It is recommended, therefore, that provision be made immediately for constructing at the university the first unit of a modern library at a cost of approximately \$350,000; that the library at Conway be extended to bring its total cost to not less than \$100,000; and that a similar sum be provided for a library at Arkadelphia. Each of the junior colleges should also be provided with a separate modern library building at a cost of approximately \$75,000 for each institution.

40. In addition to student housing and library needs, there is immediate and urgent need for a new science building at the university. This should be the first of two science units and it is recommended that the sum of \$350,000 be provided for this construction.

41. In addition to the \$1,715,000 thus specifically recommended, the commission urges that at least \$285,000 be provided for extensive repairs and for facilities for physical education at Conway, for remodeling and a new training-school building at Arkadelphia, and for repairs and redecorating at the junior colleges.

42. The \$2,000,000 thus recommended for immediate expenditure upon the plants of the State's higher institutions will not put them in first-class condition; it will meet only the immediate and most pressing needs. The survey commission strongly urges that after provision is made for the construction here recommended, an annual sum be allocated to provide for a permanent continuous building program to care for the other plant needs of the higher institutions.

43. The present indebtedness of Arkansas and its resources indicate that the State has not utilized its credit to the extent that it should to provide itself with "up-to-date tools commensurate with twentieth century standards." Arkansas can afford and is able to provide immediately the funds needed to make its educational program the equal of that of its contiguous neighbors.

44. Business management in all the higher institutions of Arkansas with the exception of the university is in need of thoroughgoing reorganization to insure centralization of all business operations, to secure adequate business safeguards, to provide for uniformity of accounting and financial reporting, to inaugurate economies in purchasing, and to make effective use of budgeting and budget control in educational planning. State regulations and State law which now require or permit the institutional procedures that depart from the principles of good educational business management should be revised.

45. It is recommended that the fees and tuitions charged by the State institutions be subjected to thorough study with a view to making them more nearly comparable and uniform with reference to the service actually rendered.

46. The commission wishes to commend the progress made toward creating a unified, state-wide cooperative system of extension service; it urges, however, that this service be extended and unified under cooperative control at a central point in the State.

47. It is recommended that a state-wide curricular revision program be developed by the teacher-training institutions of Arkansas under the leadership of the State department of education.

48. On the whole the preparation of the faculties of the higher institutions is adequate although salaries are exceedingly inadequate and opportunities afforded for scholarly improvement compare very unfavorably with those in other States. Constant improvement of the standards of staff training is necessary and it is recommended that steps be taken immediately to inaugurate a plan whereby periods of leave be granted systematically and regularly to staff members for purposes of self-improvement.

49. It is recommended further that a committee of the institutions attempt to devise a scientific salary schedule for the various ranks of college teachers which will more nearly represent equal compensation for similar service, training, and experience.

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