DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1919, No. 45

THE ACCREDITED SECONDARY SCHOOLS OF THE NORTH CENTRAL ASSOCIATION

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WASHINGTON
GOVERNMENT PRINTING OFFICE
1920

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WASHINGTON, D. C.
AT
25 CENTS PER COPY

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PREFACE.

The bases for the analyses and deductions presented in this study have been the annual reports of 1,119 secondary schools accredited by the North Central Association, together with approximately 20,000 individual teachers' report cards. To scrutinize and compile the data therein contained has required the services of a rather large staff of assistants working almost continuously for a period of 12 months or more. Most of the persons were graduate or other advanced students enrolled in my several courses in education at the University of Michigan. Their work has been indefatigable, and words of highest commendation and appreciation are due them.

To mention by name all those who have thus helped to make this study possible would, doubtless, be an unnecessary and profitless procedure. Some spent relatively few hours at the task; some devoted a portion of their time for a few weeks; and some made it their major work for months. Among the latter, special recognition should be given to the following: William J. Baumgartner, D. G. Clancy, Robert Cole, Harry T. Day, Catherine M. Regan, Abagail Blackburn, Olive G. Turner, Chloe Hardy, Fred Fleagle, H. A. Davis, C. W. Bemer, Henry A. Tape, and Guy Fox. Unstinted praise and sincere thanks are herewith gratefully given to them.

I wish also to acknowledge my indebtedness to Profs. Horace A. Hollister and James B. Edmonson, who kindly read the manuscript and offered many valuable suggestions.

The general procedure followed in the study was as follows: The original school reports were first classified in workable groups and the data transcribed on large charts, *by States*. From these detailed charts, which contained virtually every item reported by each school and each teacher, tables of condensed material, by *topics*, were formed. Finally, from these tables other summarizing tables, charts and graphs were produced. Only the latter appear in the pages which follow in the bulletin.

While the utmost precautions have been taken to make the study accurate and clear, discrepancies (and possibly apparent errors) are likely to be found in certain tables and conclusions. Superintendents and principals, in filling out the annual blanks, were not always guided by like powers of discrimination and exactness. Omissions frequently occurred. Approximations were sometimes used, and, occasionally, obvious clerical errors were discovered. Nevertheless,

so far as possible, these original faults in the reports were traced to their sources, and by means of counterreferences, were fairly evaluated and corrected. Moreover, verifications of data have been made with each step of the process of compilation. Hence it can be claimed with reasonable certitude that the figures herein presented represent the facts as they are to be found in the North Central territory. In certain compilations, as, for example, in the average number of units of work offered in the several schools and in recording the number of teachers of academic and vocational subjects, fractional units and part-time arrangements were omitted and the data recorded in terms of the nearest integer.

Finally, as a personal testimonial, I take this opportunity to express the pleasure and the helpfulness which have come to me personally in carrying forward this work, and in seeking to interpret the findings. Each step of the way has opened new vistas for me. Each topic, as it was completed, added to my comprehension of the public-school system of the Northwest and gave deeper insight and keener appreciation of its problems, processes, and tendencies. If similar experiences shall come to school men as they study the bulletins, the work will not have been undertaken in vain.

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THE ACCREDITED SECONDARY SCHOOLS OF THE NORTH CENTRAL ASSOCIATION.

PART I.—INTRODUCTION AND GENERAL INFORMATION.

AUTHORIZATION OF THE STUDY.

At the time of the twenty-second annual meeting of the North Central Association of Colleges and Secondary Schools, held in St. Louis, Mo., March 23–24, 1917, authority was given the Commission on Secondary Schools to make a detailed comparative study of the data gathered that year from the accredited secondary schools. For the benefit of those persons unfamiliar with the organization and administration of the North Central Association, it is pertinent to state that once in five years (until 1917 once in three years) a complete detailed report to the association has been required from each secondary school seeking to be accredited. The commission has for some time felt that the extensive and varied data thus gathered constitute a body of educational material too valuable to be utilized temporarily for the purpose of accrediting schools and then be filed away in dingy archives never perchance to be examined again. It has, therefore, on two previous occasions authorized the utilization of the annual report blanks for studies of a comparative kind. The first of these, *North Central High Schools*, was compiled and edited by Prof. Walter A. Jessup, of the State University of Iowa, and Prof. Lotus D. Coffman, at that time connected with the University of Illinois. This study appeared in 1914.[1] The second comparative analysis was directed by Prof. Charles H. Judd and Mr. George S. Counts, of the University of Chicago. This study was published in 1915 and bears the title: *A Study of the Colleges and High Schools in the North Central Association.*[2]

The present study seeks to follow the same general plan employed in the two earlier analyses. In certain particular details it, of course, departs entirely from the procedure followed there. Moreover, in addition to the comparisons made in reference to the situation as it existed in 1916–17, the present study seeks to place its findings in juxtaposition with similar findings presented in the earlier reports, and thus to reveal conspicuous changes or tendencies which have

[1] Reprinted from the Thirteenth Yearbook of the National Society for the Study of Education. University of Chicago Press, Chicago, Ill.

[2] Issued by the United States Bureau of Education, Bulletin, 1915, No. 6.

occurred since 1911–12, the year in which the data used in the Jessup-Coffman study were gathered.

The aim of the North Central Association is declared in the Constitution, Article II. It reads as follows:

> The object of the association shall be to establish closer relations between the secondary schools and institutions of higher education within the North Central States and such other territory as the association may recognize.

That these aims are, to a large degree, realized is evidenced by the steady growth of the association in territorial accessions, in the the number of affiliated and accredited schools and colleges, and in the power and prestige exercised in respect to educational policies and practices throughout the country. Eighteen States are to-day embraced within the association. These are: Arizona, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana; Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, Wisconsin, and Wyoming. At the time of the annual meeting, March, 1917, the association accredited 1,165 high schools and academies distributed among these 18 States.

In accrediting the schools, the following formal standards were employed, standards that have (with slight alterations and amendments made from time to time) been enforced since their first publication in 1901.

STANDARDS OF ACCREDITING SECONDARY SCHOOLS (1916–17).

1. No school shall be accredited which does not require 15 units for graduation. More than 20 periods per week should be discouraged. The school year shall consist of a minimum of 36 weeks, such standard to be in effect on and after September 1, 1918.

A unit course of study in a secondary school is defined as a course covering an academic year that shall include in the aggregate not less than the equivalent of 120 sixty-minute hours of classroom work, two hours of manual training or laboratory work being equivalent to one hour of classroom work.

2. All teachers teaching one or more academic subjects must satisfy the following standards:

A. The minimum attainment of teachers of academic subjects shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools requiring the completion of a four-year course of study or 120 semester hours in advance of a standard four-year high-school course. Such requirement shall not be construed as retroactive.

B. The minimum professional training of teachers of academic subjects shall be at least 11 semester hours in education. This should include special study of the subject matter and pedagogy of the subject to be taught. Such requirements shall not be construed as retroactive. (For the succeeding year the board will interpret courses in education as the same courses are interpreted by the colleges or universities offering them.)

C. If a teacher, new to a given high school, does not fully meet the requirement of the above standards but, in the opinion of the inspector, possess the equivalent of the training prescribed, the inspector shall submit to the board of inspectors a state-

ment concerning the training, experience, and teaching efficiency of the said teacher, together with his recommendation. The board shall, on each case presented, make a decision.

3. The number of daily periods of classroom instruction given by any teacher should not exceed five, each to extend over at least 40 minutes in the clear. The board of inspectors will reject all schools having more than six recitation periods per day for any teacher.

4. The laboratory and library facilities shall be adequate to the needs of instruction in the subjects taught.

5. The location and construction of the buildings, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

6. *The efficiency of instruction, the acquired habits of thought and study, the general intellectual and moral tone of a school are paramount factors, and therefore only schools which rank well in these particulars, as evidenced by rigid, thorough-going, sympathetic inspection, shall be considered eligible for the list.*

7. The association will decline to consider any school whose teaching force consists of fewer than four teachers of academic subjects exclusive of the superintendent. The association recommends the introduction of the so-called vocational subjects, such as agriculture, manual training, household arts, and commercial subjects into schools where local conditions render such introduction feasible, but the inspectors will hold that a sufficient number of qualified teachers must be added to provide adequately for such instruction.

8. No school shall be considered unless the regular annual blank furnished for the purpose shall have been filled out and placed on file with the inspector. Schools in good standing will make a complete report on teachers once in five years; but full data relative to changes should be presented annually.

9. No school whose records show an excessive number of pupils per teacher, based on average attendance, shall be accredited. The association recommends 25 as a maximum. No recitation class should enroll more than 30 pupils.

10. The time for which schools are accredited shall be limited to one year, dating from the time of the adoption of the list by the association.

11. The agent of communication between the accredited schools and the secretary of the commission for the purpose of distributing, collecting, and filing the annual reports of such schools and for such other purposes as the association may direct, is as follows:

(*a*) In States having such an official, the inspector of schools appointed by the State university. (*b*) In other States the inspector of schools appointed by State authority, or, if there be no such official, such person or persons as the secretary of the commission may elect.

The association is conservative, believing that such policy will eventually work to the highest interests of all. It aims to accredit only those schools which possess organization, teaching force, standards of scholarship, equipment and esprit de corps, of such character as will unhesitatingly commend them to any educator, college, or university in the North Central territory.

The range, purport, and character of the data collected from the several schools may be best comprehended by an analysis of the blank form which was used for that purpose in 1916–17, which is here reproduced.

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

(NOTE.—This is the year for a complete report from all schools. See Standard 8.)

ANNUAL REPORT of the.....High School,
Located at.....State of.....

.....(Superintendent) .....(Principal)

Check thus (X) the name of each of the above school officials who have read this report.

(A) GENERAL INFORMATION.

1. Population of city.....
2. Enrollment November 1, 1916: (*a*) boys.....(*b*) girls.....(*c*) Number in fourth year class.....(*d*) Number in third year class.....(*e*) Number in second year class.....(*f*) Number in first year class.....(*g*) Total enrollment.....
3. Number of high school teachers (include superintendent and principal if they teach one or more classes).....
4. Average number of pupils belonging for October.....
5. Average belonging per teacher.....
6. Since what date has the school been *continuously* accredited by the Association?
.....
7. How many weeks of actual school work are given? (In answering this question include examination, commencement, and other regular exercises. Count out all vacations, as Christmas and Easter, but do not count out a single legal holiday, such as Washington's birthday, nor the two days usually given at Thanksgiving time).....
8. Number of graduates last year: (*a*) boys.....(*b*) girls.....(*c*) total.....
9. Number of last year's graduates now attending higher institutions of learning .....
10. Number of nonresident pupils enrolled in high school this year (Nov. 1).....
11. Is it the avowed future policy of the school to employ, for academic subjects, none but college graduates with professional training? (See Standard 2A and B).....
12. Is it the avowed future policy of the school to maintain the ratio of teachers to pupils at approximately 1 to 25?.....

(B) THE TEACHERS.

(NOTE.—The information for this summary should be taken from the individual record cards of the teachers (include the superintendent and principal if they teach one or more classes).)

1. Number who give instruction in high school: (*a*) men.....(*b*) women .....(*c*) total.....
2. Numbers of teachers of (*a*) Academic subjects.....(*b*) Vocational subjects*.....
3. Number of *new* teachers (*a*) Academic subjects.....(*b*) Vocational subjects*.....(*c*) Total number new teachers.....
4. Of the *new* teachers of academic subjects, how many are not graduates of a standard college? (See Standard 2A).....
5. Of the *new* teachers of academic subjects, how many have not had 11 semester hours in education? (See Standard 2B).....
6. Of the *new* teachers of academic subjects, how many have had no previous teaching experience?.....

*For purposes of this report the following subjects are to be included under vocational subjects: Manual Training, Home Economics, Music, Agriculture, Commercial Subjects, Art and Drawing.

7. Of the academic teachers, not new to the school this year, how many are not graduates of a standard college?.....
8. Of the academic teachers, not new to the school this year, how many have not had 11 hours in education?.....
9. Of the vocational teachers, how many are graduates of a standard college?.....
   What subjects do these college graduates teach?.....
10. Number of periods in school day..... Length of periods in minutes .....
11. Number of teachers of academic subjects who teach the following number of periods per day: 1....., 2....., 3....., 4....., 5....., 6....., 7.....
12. Number of teachers of academic subjects whose periods of recitation, laboratory, and study-hall duty exceed thirty-five 40-minute periods per week.....
13. What is the greatest number of 40-minute periods assigned to any vocational teacher per week?..... What subject?.....
14. Number of classes with more than 30 pupils..... What subjects? .....
15. Experience: (*a*) Number of teachers with no teaching experience prior to this year.....; (*b*) Number of teachers with teaching experience, but less than 3 years.....; (*c*) Number of teachers with 3 years' experience but less than 6.....; (*d*) Number of teachers with 6 years' experience but less than 15.....; (*e*) Number of teachers with more than 15 years' experience.....
16. Salary (exclude superintendent and principal): (*a*) Number with salary less than $675; Academic....., Vocational.....; (*b*) Number with salary $675 to $899; Academic....., Vocational.....; (*c*) Number with salary $900 to $1,199; Academic....., Vocational..... (*d*) Number with salary $1,200 to $1,799; Academic..... Vocational .....; (*e*) Number with salary above $1,800; Academic....., Vocational.....

(c) BUILDING AND EQUIPMENT.

1. (*a*) Is the high school building commodious, safe, and hygenic? (See Standard 5)....., (*b*) When was the high school building constructed?.....
2. Number of volumes in the high school library.....
3. Number of dollars expended for library annually.....
4. Value of equipment: Physics.....; Chemistry.....; Biological science.....; Agriculture.....; Manual training.....; Cooking.....; Sewing.....; Commercial Subjects.....; Physical geography.....; Value of maps and charts.....; Value of gymnasium and playground.....; Estimate of value of complete plant, building, equipment, and grounds.....

What changes or additions to the standards of the association do you suggest? (Use separate sheet for answer.)

(D) PROGRAM OF STUDIES.

(Fill out the blank in full for each subject offered. For definition of unit see Standard 1.)

Academic.	Number of units offered.	Number of recitations per week.	Length of a recitation period.	Number of laboratory periods per week.	Length of a laboratory period.	Length of course in weeks.
English						
Latin						
Greek						
German						
French						
Spanish						
History:						
(a) Anc. Hist						
(b) M. & M. Hist						
(c) Eng. Hist						
(d) U. S. Hist. and Civics						
Algebra						
Geometry						
Trigonometry						
Physics						
Chemistry						
Botany						
Zoology						
Gen. Biology						
Physiology						
Phys. Geog						
Geology						
Gen. science						
Sociology						
Economics						
Publ. Speaking						
Total						

Vocational.	Number of units offered.	Number of recitations per week.	Length of a recitation period.	Number of laboratory periods per week.	Length of a laboratory period.	Length of course in weeks.
Art						
Music						
Agriculture						
Cooking						
Sewing						
Comm. Subjects						
(a) Bookkeeping						
(b) Stenography						
(c) Typewriting						
(d) Comm. Arith.						
(e) Comm. Law						
Manual Training						
Normal Tr. Courses						
Physical Educ.						
Total						

1. Which, if any, of the above units do not meet the time requirement? (See Standard 1.).....
2. Which, if any, of the above units are not counted toward graduation?.....

[Individual card—Obverse.]

RECORD OF TEACHER, PRINCIPAL, AND SUPERINTENDENT.

(To be filled out by each Teacher, Principal, and Superintendent.)

Name..... (Last) (First) (Middle)

Name of high school.....Located in city of.....

Preparation:

High Sch., Place.....No. yrs.....Grad. Date.....

Normal Sch., Place.....No. yrs.....Grad. Date.....

College, Place.....No. yrs.....Grad. Date.....

University, Place.....No. yrs.....Grad. Date.....

Post Grad., Place.....No. yrs.....Grad. Date.....

What is your highest college degree.....? Major subject in college or normal-school preparation.....? Minor subject.....?

Number of semester hours' credit in Education (See Standard 2B).....?

[Individual card—Reverse.]

EXPERIENCE:

Number months taught prior to current year: (a) In training school..... (b) In rural or elementary graded schools..... (c) In high schools ..... (d) Any other schools..... Total *years* of teaching experience..... Number years in present position prior to this year ..... Salary this year.....

WORK: Classes taught at any time *this* semester.

SUBJECT.	PERIODS PER WEEK.	LENGTH OF DAILY PERIODS IN MINUTES.	NUMBER IN CLASS.
1.	.....	.....	.....
2.	.....	.....	.....
3.	.....	.....	.....
4.	.....	.....	.....
5.	.....	.....	.....
6.	.....	.....	.....
Total			

Mark thus (*) the subjects given above that were not your major or minor subjects in college or normal-school preparation.

Number of periods per week in charge of assembly or study hall.....

Total number of periods per week of teaching, laboratory and study-hall work.....

THE PLAN OF THE STUDY.

The Jessup-Coffman report of 1914 was based on State divisions and the *population* of the cities containing the high schools. The latter were grouped in seven classes. The Judd-Counts study employed the same classification as the previous report, and in addition made use of the classification by *enrollment*. Schools were divided into six groups: Those with 100 students or less, those with from 101 to 200 students, from 201 to 300, from 301 to 500, from 501 to 1,000, and those with more than 1,000 students.

In the present study, while retaining the classification by States, a modified plan of regrouping the schools was adopted. The Association not only accredits public secondary schools, but many nonpublic schools. The aims, organization, and administration of these nonpublic schools differ in many respects from those of the public schools. It seemed desirable, therefore, to classify these schools by themselves. In consequence, throughout this study a fivefold grouping of the schools has been maintained. This grouping includes: (1) Military schools; (2) parochial or denominational schools; (3) purely private schools; (4) preparatory secondary schools attached to institutions of higher learning, as, for example, the Chicago University High School, or the Normal High School connected with the State Normal School at Kalamazoo, Mich.; and (5) public high schools.

In like manner the classification of schools into a large number of divisions based on enrollment seemed to be unfortunate and to lead to unprofitable comparisons. Based on enrollment there are really only three commonly accepted classifications of schools. These are

the *small*,[1] the *medium-sized*, and the *large* school. What shall be the precise limits separating these three divisions is, of course, a matter of personal judgment. The facts seem to indicate that the public schools with fewer than 151 pupils are, for the most part, situated in rural or quasi-rural communities; that their problems of organization, administration, curricula, teachers, and equipment are similar; and that their attainments are commensurate.

On the other hand, the schools that enroll more than 450 pupils, even though the enrollment be considerably larger than that number, have interests and problems that differ notably from those of the smaller schools, but agree pretty generally in kind and character among themselves. Moreover, schools with more than 450 pupils are, with rare exceptions, found only in the larger cities, where the social and educational ideals, habits, and processes are similar.

In consequence of these observations the public schools have, throughout this study, been classified into the three groups mentioned, namely: *Small* schools, having an enrollment of 150 pupils or fewer; *medium-sized* schools, with an enrollment between 151 and 450 pupils; and *large* schools, with an enrollment in excess of 450 pupils. Among nonpublic schools this classification has not been maintained, since the number of schools of the nonpublic character is too few to make such a threefold comparison profitable. Moreover, since only 87 schools of these types are accredited, it seemed wise, for the most part, not to include them in the general tables and analyses, but to give a separate section of the bulletin to them. This will be found near the end of this report.

Further, in making the various compilations, the data from each group of schools have been arranged in accordance with the fivefold division suggested by the report blank itself, namely: A, General Information; B, The Teachers; C, Buildings and Equipment; D, the Program of Studies, and E, Miscellaneous Items gathered from the individual teachers' report cards.

SECONDARY SCHOOLS ACCREDITED IN 1917.

ARIZONA

Bisbee.
Gila Acad.
Globe.
Phoenix.
Prescott.
Tucson.
Winslow.

COLORADO

Aspen.
Boulder:
Colorado State Preparatory School.
Canon City High.
South.
Colorado City.
Colorado Springs.
Cripple Creek.
Delta.
Denver:
East Side.
Denver—Continued.
Manual Training.
North Side.
South Side.
West Side.
Durango.

[1] Throughout this report S will be used for Small; M for Medium, and L for Large.

Eaton.
Fort Collins.
Fort Morgan.
Fruita (Union H. S.)
Glenwood Springs:
  Garfield County.
Golden.
Grand Junction.
Greeley.
Gunnison:
  Gunnison County.
La Junta.
Las Animas:
  Bent County.
Leadville.
Longmont.
Loveland.
Monte Vista.
Montrose:
  Montrose County.
Pueblo:
  Centennial.
  Central.
Rocky Ford.
Salida.
Telluride.
Trinidad.
Victor.

ILLINOIS

Alton:
  High School.
  W. Military Academy.
Aurora:
  East.
  West.
  Jennings Seminary.
Batavia.
Beardstown.
Belleville.
Belvidere.
Benton Tp.
Bloomington.
Blue Island.
Bridgeport Tp
Cairo.
Carbondale:
  N. Univ. H. School.
Carthage:
  College Acad.
Centralia Tp.
Champaign.
Charleston.
Chicago:
  Austin.
  Bowen.
  Calumet.
  Carl Schurz.
  Crane Technical.
  Englewood.
  Fenger.
  Harrison Tech.
  Hyde Park.
  Lake.
  Lake View.
  Lane Tech. (Tilden).
  Lucy Flower Tech.
  Marshall.
  McKinley.
  Medill.
  Morgan Park.
Chicago—Continued.
  Parker.
  Phillips.
  Senn.
  Tuley.
  Waller.
  F. W. Parker School.
  Harvard School.
  Latin School.
  Loyola Academy.
  Morgan Park Preparatory School.
  North Park Col. Acad.
  Starrett Sch. for Girls.
  Univ. High School.
Chicago Heights:
  Bloom Tp.
  Chrisman Tp.
Cicero:
  Sterling-Morton Tp.
Clinton.
Collinsville Tp.
Crystal Lake.
Danville.
Decatur.
DeKalb Tp.
Des Plains:
  Maine Tp.
Dixon.
East Moline Tp.
Dundee.
DuQuoin Tp.
Dwight Tp.
East St. Louis.
Edwardsville.
Elgin:
  High School.
  Academy.
Elmhurst:
  Evang. Proseminar.
Eureka Tp.
Evanston:
  Tp. High School.
  Academy.
  Fairbury Tp.
Farmer City:
  Moore Tp.
Flora:
  Harter-Stanford Tp.
Freeport.
Galesburg.
Galva.
Geneseo Tp.
Geneva.
Gibson City:
  Drummer Tp.
Godfrey:
  Monticello Seminary.
Granite City.
Harrisburg Tp.
Harvey:
  Thornton Tp.
Herrin Tp.
Highland Park:
  Deerfield Tp.
Hinsdale Tp.
Hoopeston.
Jacksonville:
  High.
  Illinois Woman's College Academy.
  Whipple Acad.
Joliet Tp.
Kankakee.
Kenilworth:
  New Trier Tp.
Kewanee.
La Grange:
  Lyons Tp.
Lake Forest:
  Academy.
  Ferry Hall.

La Salle:
  La Salle-Peru Tp.
Lawrenceville Tp.
Lewistown.
Lexington.
Lincoln.
Lockport Tp.
Macomb:
  Acad. Dept. of Normal School.
Marion Tp.
Marshall Tp.
Mattoon.
Maywood:
  Proviso Tp.
Moline.
Morris.
Morrison.
Mount Carroll:
  Frances Shimer Sch.
Mount Vernon Tp.
Murphysboro Tp.
Naperville:
  High School.
  North W. Col. Acad.
Newman Tp.
Normal:
  High School.
  Normal Univ. H. Sch.
Oak Park:
  Oak River and River Forest Tp.
Olney Tp.
Onarga:
  Grand Prairie Sem.
Ottawa Tp.
Palestine Tp.
Pana Tp.
Paris.
Paxton.
Pekin.
Peoria:
  Bradley Poly. Inst.
  Central.
  Manual Training.
Petersburg.
Polo.
Pontiac Tp.
Princeton Tp.
Quincy.
Riverside—Brookfield.
Robinson Tp.
Rochelle.
Rockford.
Rock Island:
  High School
  Augustana Acad.
Sidell Tp.
Spring Valley:
  Hall Tp.
St. Charles.
Savanna Tp.
Shelbyville.
Springfield.
Sterling Tp.
Streator Tp.
Sullivan Tp.
Sycamore.
Taylorville Tp.
Tuscola.
Urbana.
Waseka.
Waukegon Tp.
West Chicago.
Wheaton:
  High School.
  Academy.
Woodstock.

INDIANA.

Alexandria.
Anderson.
Attica.
Bedford.
Bloomington.
Bluffton.
Brazil.
Bremen.
Clinton.
Columbia City.
Columbus.
Connersville:
  High School.
  Elmhurst School.
Crawfordsville.
Crown Point.
Culver Military Acad.
Danville.
Decatur.
Delphi.
East Chicago.
Elkhart.
Evansville.
Fort Wayne.
Frankfort.
Franklin.
Gary:
  Emerson.
  Froebel.
Goshen.
Hammond.
Hartford City.
Howe School.
Huntington.
Indianapolis:
  Manual Training.
  Shortridge.
  Technical.
Jeffersonville.
Kendallville.
Kokomo.
Lafayette.
La Grange.
La Porte.
Lawrenceburg.
Ligonier.
Logansport.
Madison.
Marion.
Martinsville.
Michigan City.
Mishawaka.
Monticello.
Mount Vernon.
Muncie.
New Albany.
New Castle.
Noblesville.
North Manchester.
Pendleton Consolidated.
Peru.
Plymouth.
Princeton.
Rensselaer.
Richmond.
Rochester.
Rockport.
Rushville.
Salem.
Shelbyville.
Sheridan.
Shields.
South Bend.
St. Joseph Col. H. S.
Sullivan.

Terre Haute:
  Garfield.
  Normal Training.
  Wiley.
Union City.
Valparaiso.
Vincennes.
Wabash.
Washington.
West Lafayette.
Whiting.
Winchester.

IOWA.

Albia.
Algona.
Ames.
Anamosa.
Audubon.
Bedford.
Belle Plaine.
Boone.
Burlington.
Carroll.
Cedar Falls:
  High School.
  Training School.
Cedar Rapids.
Centerville.
Charles City.
Cherokee.
Clarinda.
Clarion.
Clinton.
Colfax.
Corning.
Corydon.
Council Bluffs.
Cresco.
Creston.
Davenport.
Decorah.
Denison.
Des Moines:
  East.
  North.
  West.
Dubuque.
Eagle Grove.
Eldora.
Elkader.
Emmetsburg.
Fairfield.
Fort Dodge.
Fort Madison.
Grinnell.
Hampton.
Independence.
Indianola.
Iowa City.
Iowa Falls
Keokuk.
Le Mars.
Logan.
Lyons.
Manchester.
Maquoketa.
Marengo.
Marion.
Marshalltown.
Mason City.
Missouri Valley.
Monticello.
Mount Pleasant.
Muscatine.
Newton.
Onawa.
Osage.
Oskaloosa:
  High School.
  Penn. Coll. Acad.
Ottumwa.
Sheldon.
Sibley.
Sioux City.
Spencer.
Spirit Lake.
Storm Lake.
Villesca.
Vinton.
Washington.
Waterloo:
  East.
  West.
Waverly.
Webster City.
West Liberty.

KANSAS.

Abilene.
Alma.
Argentine.
Arkansas City.
Atchison.
Baldwin:
  Baker Academy.
Burlington.
Chanute.
Chapman:
  Dickinson Co.
Cherryvale.
Clay Center:
  Clay Co.
Colby:
  Thomas Co. High.
Columbus:
  Cherokee Co.
Concordia.
Dodge City.
Effingham:
  Atchison Co. High.
El Dorado.
Ellsworth.
Emporia:
  High.
  Normal Train. High.
Eskridge.
Eureka.
Fort Scott.
Garden City.
Garnett.
Great Bend.
Herrington.
Hiawatha.
Hoisington.
Horton.
Humboldt.
Hutchinson.
Independence:
  Montgomery Co.
Iola.
Junction City.
Kansas City:
  Central.
  Sumner.
Kingman.
Kinsley.

Lawrence.
Leavenworth.
Manhattan.
Mankato.
Marion.
Marysville.
McPherson.
Minneapolis.
Neodesha.
Newton:
  Bethel Academy.
  High School.
Nickerson:
  Reno Co.
Olathe.
Ottawa:
  Univ. Academy.
Paola.
Parsons.
Pittsburg.
Pratt.
Rosedale.
Sabetha.
Salina.
Seneca.
Stafford.
Sterling.
St. John.
Topeka:
  Bethany Col. Acad.
  High School
  Washburn Coll. Ac.
Wakeeny:
  Trego Co.
Wamego.
Washington.
Wellington:
  Sumner Co.
Wichita.
Winfield.
Yates Center.

MICHIGAN.

Adrian.
Albion.
Alma.
Alpena.
Ann Arbor.
Battle Creek.
Bay City:
  East.
  West.
Belding.
Benton Harbor.
Benzonia Acad.
Bessemer.
Big Rapids:
  High School.
  Ferris Institute.
Birmingham.
Boyne City.
Cadillac.
Calumet.
Charlevoix.
Charlotte.
Cheboygan.
Chelsea.
Coldwater.
Croswell.
Crystal Falls.
Detroit:
  Cass.
  Central.
  Eastern.
  Liggett.
  Nordstrom.
  Northwestern.
  New University.
  Univ. of Detroit Prep.
  Western.
Dollar Bay.
Dowagiac.
Eaton Rapids.
East Jordan.
Escanaba.
Evart.
Flint.
Fremont.
Gladstone.
Grande Ledge.
Grand Rapids:
  Central.
  Calvin College Prep.
  South.
  Union.
Grand Haven.
Greenville.
Hancock.
Harbor Springs.
Hart.
Hastings.
Highland Park.
Hillsdale.
Holland.
Houghton.
Howell.
Hudson.
Ionia.
Iron Mountain.
Iron River.
Ironwood.
Ishpeming.
Ithaca.
Jackson.
Kalamazoo:
  High School.
  Normal High.
Lake Linden.
Lansing.
Lapeer.
Lowell
Ludington.
Manistee.
Manistique.
Marquette.
Marshall.
Mason.
Menominee.
Midland.
Monroe.
Munising.
Muskegon.
Mt. Clemens.
Mt. Pleasant.
Negaunee.
Newberry
Norway.
Ontonagon.
Otsego.
Owosso.
Painesdale.
Paw Paw.
Petoskey.
Pontiac.
Port Huron.
Portland.
Plymouth.
Reed City.
River Rouge.
Royal Oak.
Saginaw:
  East.
  Arthur Hill.
Sault Ste. Marie.
Shelby.
South Grand Rapids.
South Haven.

St. Johns.
St. Joseph.
St. Louis.
Three Rivers.
Traverse City.
Wakefield
Wayne.
Williamston.
Wyandotte.
Ypsilanti.
Zeeland.

MINNESOTA.

Albert Lea.
Alexandria.
Anoka
Austin.
Bemidji.
Biwabik.
Blue Earth.
Brainerd.
Buhl.
Canby.
Chisholm.
Cloquet.
Coleraine.
Crookston.
Duluth:
  Central.
  Robert E. Denfield.
East Grand Forks.
Ely.
Eveleth.
Fairmont.
Faribault.
Fergus Falls.
Gilbert.
Glencoe.
Glenwood.
Grand Rapids.
Hastings.
Hector.
Hibbing.
Hopkins.
Hutchinson.
Jackson.
Lake City.
Litchfield.
Little Falls.
Luverne.
Mankato.
Marshall.
Minneapolis:
  Central.
  East.
  North.
  South.
  West.
  Univ. High School.
Montevideo.
Moorhead.
Morris.
New Ulm.
Northfield.
Owatonna
  High School.
Park Rapids.
Pipestone.
Red Wing.
Redwood Falls.
Rochester.
St. Cloud.
St. James.
St. Paul:
  Bethel Acad.
  Central.
  Durham Hall.
  Humboldt.
  John A. Johnson.
  Mechanic Arts.
St. Peter.
Sauk Center.
Sleepy Eye.
South St. Paul.
Spring Valley.
Staples.
Stillwater.
Thief River Falls.
Two Harbors.
Virginia.
Wadena.
Waseca
Wells.
Willmar.
Windom.
Winona.
Worthington.

MISSOURI.

Bethany.
Boonville:
  Kemper Military Sch.
Butler.
Carrollton.
Carthage.
Charleston.
Chillicothe.
Clayton.
Columbia:
  High School.
  Christian Coll. Acad.
  Stephens Coll. Acad.
Ferguson.
Fredericktown.
Fulton:
  High School.
  Synodical Coll. Acad.
  Wm. Woods Col. Acad.
Hannibal.
Higginsville.
Independence.
Jefferson City:
  Ernst Simonsen.
Joplin.
Kansas City:
  Central.
  Manual Train.
  Northeast.
  Polytechnic Inst.
  Westport.
Kennett.
Kirkwood.
Lamar.
Lebanon.
Lexington:
  High School.
Lincoln.
Macon.
Maplewood.
Marshall.
Maryville.
Mexico:
  High School.
  High School Dept. Hardin College.

Nevada:
  High School.
Paris.
Poplar Bluff.
St. Charles:
  High School.
  Lindenwood Acad.
St. Joseph:
  Central.
  Benton.
St. Louis:
  Central.
  Grover Cleveland.
  McKinley.
  Frank Louis Soldan.
  Sumner.
  Yeatman.
  Hosmer Hall.
  Lenox Hall.
  Smith Academy.
  The Principia.
Savannah.
Sedalia.
Shelbina.
Trenton.
Vandalia.
Webb City.
Webster Groves.
Wellston.
West Plains.

MONTANA.

Anaconda.
Big Timber:
  Sweet Grass Co. H. S.
Billings.
Bozeman:
  Gallatin Co. H. S.
Butte.
Chinook.
Chouteau:
  Teton Co. H. S.
Columbus.
Deer Lodge:
  Powell Co. H. S.
Dillon:
  Beaverhead Co. H. S.
Forsyth.
Fort Benton:
  Chouteau Co. H. S.
Glasgow.
Glendive:
  Dawson Co. H. S.
Great Falls.
Hamilton.
Havre.
Helena.
Kalispell:
  Flathead Co. H. S.
Lewistown:
  Fergus Co. H. S.
Livingston:
  Park Co. H. S.
Miles City:
  Custer Co. H. S.
Missoula:
  Missoula Co. H. S.
Philipsburg:
  Granite Co. H. S.
Red Lodge:
  Carbon Co. H. S.

NEBRASKA.

Albion.
Alliance.
Alma.
Ashland.
Auburn.
Aurora.
Beatrice.
Benson.
Blair.
Broken Bow.
Central City.
Columbus.
Crete.
Fairbury.
Fairfield.
Falls City.
Franklin Academy.
Fremont.
Friend.
Fullerton.
Geneva.
Gothenburg.
Grand Island.
Harvard.
Hastings:
  High School.
  Hastings Academy.
Havelock.
Holdrege.
Humboldt.
Kearney.
Kimball Co.
Lexington.
Lincoln:
  High.
  Teachers Coll. High.
McCook.
Madison.
Minden.
Nebraska City.
Nelson.
Norfolk.
North Bend.
North Platte.
Omaha:
  High.
  Brownell Hall.
  Creighton Academy.
Omaha—Continued.
  South High.
Pawnee.
Ravenna.
Red Cloud.
Schuyler.
Scottsbluff.
Seward.
Shelton.
Sidney.
Superior.
Tecumseh.
Tekamah.
University Place:
  High.
  Wesleyan Academy.
Wahoo.
Wayne.
Wisner.
York:
  High.
  Academy.

NEW MEXICO.

Albuquerque.
Carlsbad.
East Las Vegas.
Las Vegas:
  Normal Univ. Prep. S.
Roswell:
  Military Institute.
Santa Fe.
Silver City:
  State Normal Prep.
State College:
  Agri. Col. Prep.

NORTH DAKOTA.

Agricultural College:
  Agr. and Man. Tr.
    High School.
Beach:
  Agricultural.
Bismarck.
Bottineau.
Cando.
Carrington:
  Agricultural.
Casselton.
Cavalier.
Cooperstown.
Devils Lake.
Dickinson.
Edgeley.
Fargo.
Grafton.
  Agricultural.
Grand Forks.
Hope.
Jamestown.
Kenmare.
Lakota.
La Moure:
  Agricultural.
Langdon.
Larimore.
Lisbon.
Mandan.
Minot.
New Rockford.
Oakes.
Park River.
Rugby.
University:
  Model High School.
Wahpeton.
Williston.
Valley City.

OHIO.

Akron:
  Central.
  South.
  West.
Alliance.
Amherst.
Ashland.
Ashtabula Harbor.
Barberton.
Bellaire.
Bellefontaine.
Bellevue.
Berea.
Bluffton
Bowling Green.
Bridgeport.
Bryan.
Bucyrus.
Cambridge.
Canton.
Canal Winchester.
Celina.
Chardon.
Chicago Junction
Chillicothe.
Cincinnati:
  Coll. Prep. Girls.
  Franklin.
  Hartwell.
Cincinnati—Continued.
  Hughes.
  Madisonville.
  Pleasant Ridge
  St. Xavier.
  Uni. School.
  Walnut Hills.
  Woodward.
Circleville.
Cleveland:
  Central.
  East.
  East Tech.
  Glenville.
  Lincoln.
  South.
  West.
  West Tech.
  Univ. School.
  Cleveland Hts.
  Columbiana.
Columbus:
  Ac. of Capital Univ.
  East.
  North.
  South.
  West.
  Sch. for Girls.
Conneaut.
Coshocton.
Covington.
Crestline.
Cuyahoga Falls.
Danville, Buckeye City
Dayton:
  Steele.
  Stivers Man. Tr.
  St. Marys Coll. Acad.
Defiance.
De. Graff.
Delaware.
Delphos.
Dennison.
Dover.
E. Cleveland.
E. Liverpool.
Eaton.
Elyria.
Findlay.
Fostoria.
Fredericktown.
Fremont.
Galion.
Gallipolis.
Geneva.
Gibsonburg.
Girard.
Grandview Heights.

Granville:
Doane Academy.
Greenfield.
Greenville.
Hamilton.
Hillsboro.
Ironton.
Jackson.
Jefferson.
Kent.
Kenton.
Lakewood.
Lancaster.
Leipsic.
Leroy.
Lima.
Lisbon.
Lockland.
Logan.
London.
Lorain.
Mansfield.
Marietta.
Marion.
Martins Ferry.
Marysville.
Massillon.
Mechanicsburg.
Medina.
Miamisburg.
Middletown.
Mingo Junction.
Minster.
Mount Sterling.
Mount Vernon.
Napoleon.
Nelsonville.
Newark.
New Bremen.
New Concord.
New Lexington.
New Philadelphia.
Niles.
North Baltimore.
Norwalk.
Norwood.
Oak Harbor.
Oberlin
Orrville.
Oxford:
Wm. McGuffey Sch.
Painesville.
Pandora:
Riley Tp.
Piqua.
Pomeroy.
Port Clinton.
Portsmouth.
Ravenna.
Rio Grande:
Racoon Tp.
Salem.
Sandusky.
Shelby.
Sidney.
Springfield.
Steubenville.
St. Clairsville.
St. Marys
Tiffin.
Tippecanoe City.
Toledo:
Scott.
Smead.
Waite.
Troy.
Ulrichsville.
Upper Sandusky.
Urbana.
Van Wert.
Wadsworth.
Wapakoneta.
Warren.
Washington C. H.
Wauseon.
Wellston.
Wellsville.
Westerville.
West Jefferson.
Willoughby.
Wilmington.
Wooster:
High School.
Wooster Acad.
Wyoming.
Xenia.
Youngstown:
Rayen.
South.
Zanesville.

OKLAHOMA.

Bartlesville.
Blackwell.
Chickasha.
Claremore:
Eastern Prep. Sch.
El Reno.
Enid:
High School.
Philips Univ. Acad.
Guthrie.
Henryetta.
Hugo.
Lawton.
McAlester.
Muskogee.
Oklahoma City.
Okmulgee.
Pryor.
Sapulpa.
Shawnee.
Tonkawa:
Univ. Prep. School.
Tulsa.
Vinita.

SOUTH DAKOTA.

Aberdeen.
Armour.
Bellfourche.
Brookings.
Canton.
Clark.
Deadwood.
Flandreau.
Groton.
Hot Springs.
Huron.
Lead.
Madison.
Milbank.
Miller.
Mitchell.
Pierre.
Rapid City.
Redfield.
Sioux Falls:
All Saints.
Washington.
Vermilion.
Watertown.
Webster.
Yankton.

WISCONSIN

Antigo.
Appleton.
Ashland.
Baraboo.
Beaver Dam:
  High School.
  Wayland Academy.
Beloit.
Berlin.
Burlington.
Chilton.
Chippewa Falls.
Columbus.
Delafield:
  St. Johns Mil. Acad.
Delavan.
Dodgeville.
Eau Claire.
Edgerton.
Elkhorn.
Ellsworth.
Elroy.
Evansville.
Fennimore.
Fond du Lac.
Fort Atkinson.
Grand Rapids.
Green Bay:
  East.
  West.
Hartford.
Hudson.
Hurley.
Janesville.
Jefferson.
Kaukauna.
Kenosha.
La Crosse.
Lake Geneva:
  High.
  Northwestern Mil. Acad.
Lake Mills.
Lancaster.
Lodi.
Madison:
  High School.
  Wisconsin H. Sch.
Manitowoc.
Marinette.
Marshfield.
Medford.
Menasha.
Menomonie.
Merrill.
Milwaukee:
  East.
  North.
  South.
  Washington.
  West.
  Milwaukee-Downer.
Mineral Point.
Mondovi.
Monroe.
Neepah.
Neilsville.
New London.
New Richmond.
Oconomowoc.
Oconto.
Oshkosh.
Park Falls.
Plateville.
Plymouth.
Portage.
Port Washington.
Racine.
Racine College G. S.
Reedsburg.
Rhinelander.
Rice Lake.
Richland Center.
Ripon.
River Falls.
Sheboygan.
Sinsinawa:
  St. Clara Acad.
South Milwaukee.
Sparta.
Stanley.
Stevens Point.
Stoughton.
Sturgeon Bay.
Superior:
  Central.
  Nelson Dewey.
Tomah.
Tomahawk.
Viroqua.
Washburn.
Watertown.
Waukesha.
Waupauca.
Waupun.
Wausau.
Wauwatosa.
West Allis.
West Bend.
Whitewater.

WYOMING.

Casper:
  Natrona Co. High.
Cheyenne.
Laramie:
  High School.
  University High
Rock Springs.
Sheridan.

The following tables reveal the general situation among the schools of the North Central territory:

TABLE 1.—*Growth in the number of accredited schools of all types since 1904.*

State.	1917	1916	1915	1914	1909	1904
Arizona	7	2	0	0	0	0
Colorado	37	38	39	36	31	9
Illinois	163	163	153	149	97	34
Indiana	83	79	72	63	42	7
Iowa	79	72	69	65	59	11
Kansas	74	73	74	68	17	0
Michigan	119	112	99	99	74	28
Minnesota	80	85	75	73	44	6
Missouri	65	61	59	52	28	9
Montana	25	23	20	16	1	0
Nebraska	64	67	59	55	24	4
New Mexico	8	0	0	0	0	0
North Dakota	33	33	32	28	5	0
Ohio	175	177	161	156	93	26
Oklahoma	21	20	19	21	2	0
South Dakota	25	23	22	19	15	0
Wisconsin	101	96	91	90	71	26
Wyoming	6	5	4	3	1	0
Total	1,165	1,129	1,048	993	595	160

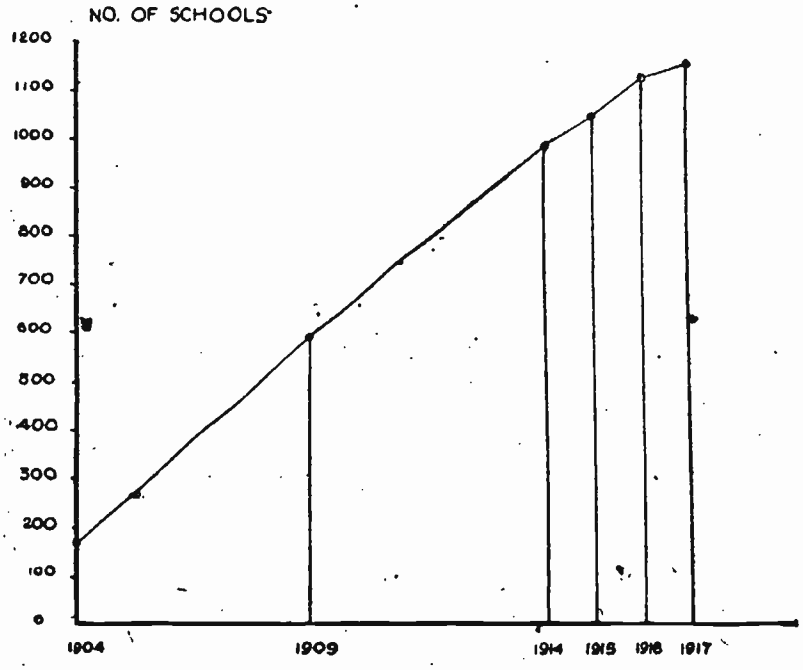


CHART I.—Growth of accredited schools since 1904.

CONSTITUENCY OF THE LIST OF SCHOOLS.

Table 3 reveals the constituency of the North Central accredited list of schools, as studied. The table shows that the records of 46 accredited schools are missing from the reports, but that of the

1,119 secondary schools whose records were available for the present study the following groups are obtainable:

TABLE 2.—*Grouping of the 1,119 schools whose records were available.*

Schools.	Number.	Per cent.
Large public schools (over 450 pupils)	234	[1] 22.67
Medium public schools (151–450 pupils)	559	[1] 54.16
Small public schools (under 151 pupils)	239	[1] 23.15
Total number of public schools (92.23 per cent of all)	1,032	[1] 99.98
Preparatory schools (attached to colleges, etc.)	47	[2] 54.02
Parochial schools	5	[2] 5.74
Military schools	6	[2] 6.89
Private schools	29	[2] 33.33
Total number nonpublic schools (7.77 per cent of all)	87	[2] 99.98

[1] Per cent of public. [2] Per cent of nonpublic.

That is, the number of *medium-sized* public schools is more than equal to that of the *large* schools and of the *small* schools combined, the percentages being, large, 22.6 per cent; medium, 54.2 per cent; small, 23.1 per cent. This is, of course, what would commonly be expected. The North Central Association is composed, to a noticeable degree, of the larger, better equipped, and better financed public schools.

Table 3 also reveals the interesting fact that more than half (120) of the *large* schools are located in the three States of Ohio (49), Illinois (46), and Michigan (25). On the other hand, these same three States contain fewer than one-third (75) of the accredited *small* schools. The instances in which the small schools outnumber both the other two groups are, as doubtless would be expected, found in the newer States—Montana, New Mexico, North Dakota, and Wyoming.

Another interesting group of facts revealed by Table 3 is that relating to the nonpublic schools. Only 7.77 per cent of all the schools accredited by the association fall into this division, and of these, 47, or 54 per cent of the whole number, are preparatory schools attached to institutions of higher learning, which are in many cases themselves a part of the public school system. These 47 schools might, therefore, properly be classified at least as quasi-public schools. Twenty-nine purely private schools, five parochial schools, and six military schools (which doubtless are also controlled and supported by private means) make up the remainder of the list.

TABLE 3.—*Constituency of the North Central accredited list of schools as studied.*

State.	Public schools.				Nonpublic schools.					Grand total.
	Large.	Medium.	Small.	Total.	Preparatory.	Parochial.	Military.	Private.	Total.	
Arizona	1	4	1	6	0	0	0	0	0	6
Colorado	9	15	12	36	0	0	0	1	1	37
Illinois	46	70	19	135	15	0	1	11	27	162
Indiana	19	48	12	79	1	0	2	1	4	83
Iowa	17	46	13	76	2	0	0	0	2	78
Kansas	11	46	10	67	5	1	0	0	6	73
Michigan	25	64	23	112	3	1	0	3	7	119
Minnesota	12	42	13	67	0	0	0	2	2	69
Missouri	16	25	11	52	7	0	1	3	11	63
Montana	4	8	13	25	0	0	0	0	0	25
Nebraska	2	36	19	57	5	1	0	1	7	64
New Mexico	0	1	3	4	0	0	0	0	0	4
North Dakota	2	7	21	30	2	0	0	0	2	32
Ohio	49	83	33	165	5	0	0	5	10	175
Oklahoma[1]										
South Dakota	1	12	11	24	0	1	0	0	1	25
Wisconsin	20	50	22	92	2	1	2	2	7	99
Wyoming	0	2	3	5	0	0	0	0	0	5
Total	234	559	239	1,032	47	5	6	29	87	1,119
Percentages	22.67	54.16	23.15	99.98	54.02	5.74	6.89	33.33	99.98	

[1] The report blanks of 46 accredited schools were for unexplained causes never received. The total number of schools entering into this study is therefore 1,119. The missing reports are as follows: Arizona, 1; Illinois, 1; Iowa, 1; Kansas, 1; Minnesota, 11; Missouri, 2; New Mexico, 4; North Dakota, 1; Oklahoma, 21 (entire list); Wisconsin, 2; Wyoming, 1; total, 46.

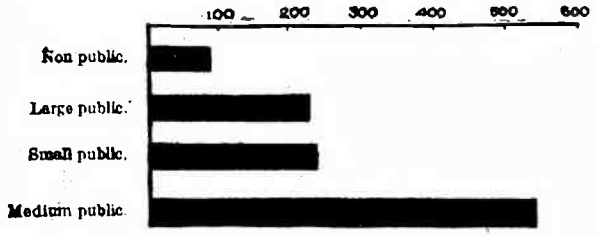


CHART II.—Groupings of the accredited schools.

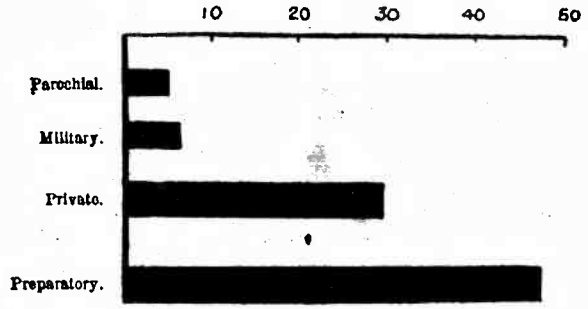


CHART III.—Groupings of the nonpublic schools.

ENROLLMENT.

Table 7 gives the total enrollment in the North Central accredited secondary schools as it was November 1, 1916, the reports of 1,119 schools being studied. The totals are:

Boys, 176,716, or an average of 157 per school; girls, 213,149, or an average of 190 per school; grand total, 389,865, or an average of 348 per school.

In the study made in 1914 (Judd-Counts study, p. 37) the total enrollment in the accredited schools for that year was 288,693, distributed among 918 schools. This is an average of 314 per school. Within three years, therefore, the increase in the enrollment among the association's accredited schools has been 101,172, or an average, per school of 34 pupils.

It is interesting to note, too, the extent to which the number of girls exceeds the number of boys in the schools, being an excess of 36,433, or an average of 33 per school. In no State does the number of boys equal the number of girls. The average excess per school of girls over boys is as follows:

TABLE 4.—*Average excess per school of girls over boys enrolled in the accredited schools.*

Arizona.....19	Michigan.....19	North Dakota.....22
Colorado.....40	Minnesota.....48	Ohio.....18
Illinois.....29	Missouri.....61	South Dakota.....31
Indiana.....21	Montana.....38	Wisconsin.....29
Iowa.....47	Nebraska.....29	Wyoming.....36
Kansas.....62	New Mexico.....24	

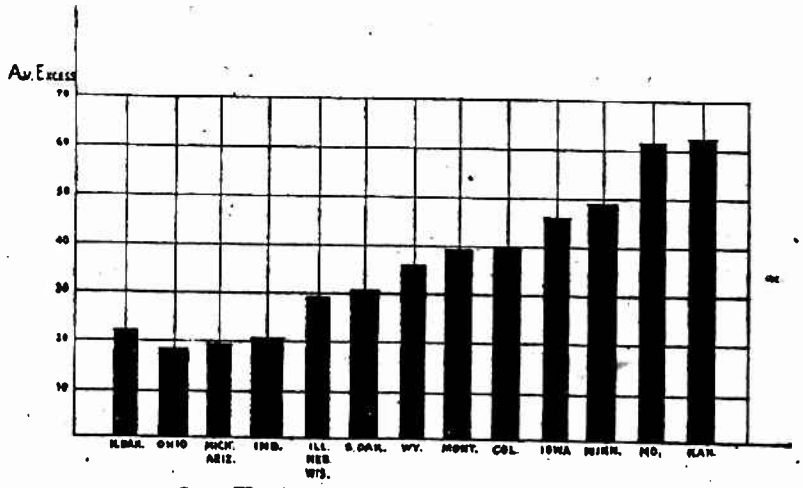


CHART IV.—Average excess, per school, of girls over boys.

Just why Kansas (with 62) and Missouri (with 61) should have on the average per school such a large excess of girls over boys is not obvious.

Further, the facts seem to indicate that in Ohio a larger number of boys, relatively speaking, pursue a secondary education than in any other North Central Association State. Next to Ohio stand

in order Michigan and Arizona, Indiana, North Dakota, and New Mexico with an excess of girls fewer than 25 per school. Excepting Arizona and New Mexico, which have been admitted to the North Central Association within the last two years and have small lists of accredited schools, and excepting North Dakota, the facts seem to indicate that in the States lying in the eastern portion of the association territory boys attend the secondary schools in much larger numbers, relatively speaking, than in the more western States. It is regrettable that data respecting this topic have not been gathered previously. As the facts stand, no comparisons with other years is possible here.

Table 5 reveals the distribution of pupils among the four years or classes of the high school. The totals are as follows:[1]

TABLE 5.—*Pupil distribution by classes.*

Years.	Number of pupils.	Average per school.	Per cent of entire enrollment.	Per cent of loss.
First year	142,668	127	37.72	
Second year	102,438	92	27.08	10.64
Third year	74,057	66	19.58	7.50
Fourth year	59,038	53	15.61	3.97

[1] Some discrepancies exist between the totals given here and in Table 9. These are due to the inclusion in the former case of special and irregular students.

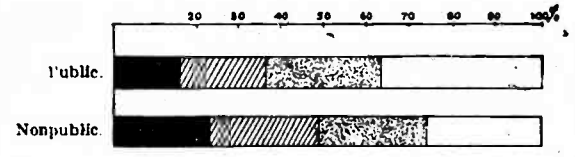


CHART V.—Distribution of pupils by classes, in percentages. Dark sections indicate fourth-year students; shaded sections, third-year students; dotted sections, second-year students; and light sections, first-year students.

TABLE 6.—*Enrollment compared with that of Judd-Counts study.*

Years.	Judd-Counts study.	Present study.	Change.
	Per cent.	*Per cent.*	*Per cent.*
First year	38.1	37.72	−0.28
Second year	26.5	27.08	+ .58
Third year	19.5	19.58	+ .08
Fourth year	15.9	15.61	− .29

These facts are striking. In three years (1914 to 1917) there has been less than 1 per cent change in the percentages of distribution.

TABLE 7.—*Total enrollment by States, and the average enrollment per school of all the schools accredited, public and nonpublic.*

State.	Number of schools.	Boys.	Girls.	Total.	Average.
Arizona	6	836	947	1,783	297
Colorado	37	5,756	7,248	13,004	352
Illinois	162	34,794	39,586	74,380	459
Indiana	83	14,591	16,383	30,974	373
Iowa	78	11,139	14,845	26,034	334
Kansas	73	8,738	13,273	22,011	302
Michigan	119	20,256	22,529	42,785	360
Minnesota	69	11,105	14,410	25,515	370
Missouri	63	11,370	15,152	26,522	421
Montana	25	2,664	3,615	6,279	251
Nebraska	64	6,036	7,891	13,927	218
New Mexico	4	241	336	577	144
North Dakota	32	1,663	2,868	4,531	141
Ohio	175	31,084	34,296	65,380	374
Oklahoma[1]					
South Dakota	25	1,897	2,683	4,580	183
Wisconsin	99	13,878	16,688	30,566	309
Wyoming	5	418	599	1,017	203
Total	1,119	176,716	213,149	389,865	
Average		157	190	348	

[1] Data lacking.

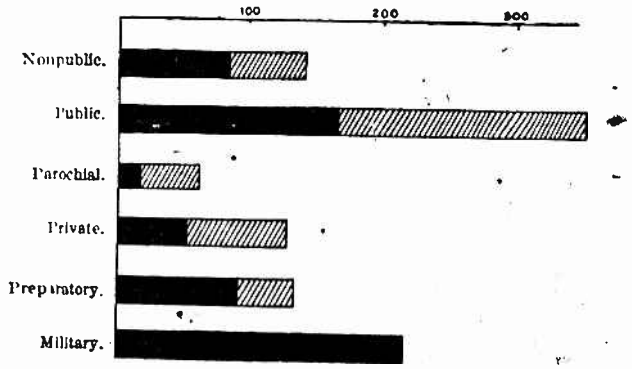


CHART VI.—Average enrollment of pupils in various types of schools. Dark sections indicate boys; shaded sections indicate girls.

TABLE 8.—*Total enrollment by States, and average enrollment per year (class) of all the schools accredited, public and nonpublic.*

State.	Fourth year.	Third year.	Second year.	First year.
Arizona	220	329	407	637
Colorado	1,962	2,416	3,885	4,305
Illinois	10,138	12,592	19,016	30,472
Indiana	5,152	6,127	8,146	11,133
Iowa	4,550	5,368	6,850	9,192
Kansas	3,729	4,339	6,251	7,376
Michigan	5,779	7,814	10,542	15,208
Minnesota	4,321	4,898	6,629	9,350
Missouri	3,890	4,807	6,846	10,211
Montana	995	1,247	1,673	2,480
Nebraska	2,500	2,980	3,707	5,196
New Mexico	93	128	181	175
North Dakota	798	909	1,120	1,667
Ohio	8,454	12,592	17,740	22,382
South Dakota	835	903	1,173	1,649
Wisconsin	5,450	6,393	7,994	10,876
Wyoming	166	215	278	364
Total	59,032	74,057	102,438	142,668
Average	53	66	92	127

PART II.—ACCREDITED PUBLIC SCHOOLS.

Part I of this study has dealt with data of *all* the schools accredited by the association. This was done in order to have comparable figures to contrast with certain earlier statistical studies of the association. In Part II, public schools only are considered. The subdivisions of this portion of the work are: Division A—Pupils; Division B—Teachers; Division C—Buildings and Equipment; Division D—The Program of Studies; and Division E—Miscellaneous Topics.

It was the original plan of the compilers of the data for this study to present detailed tables of the conditions in each of the three main types of public schools of our classification—for large, medium, and small schools— and then to offer a summarizing table for all schools combined. Such tables of details for each topic and for each type of school have been worked out with great care. Owing, however, to the present excessive cost of reproducing such numbers of tables the original project has had to be abandoned. For the most part, therefore, in the pages which follow, only summarizing tables will be presented.

DIVISION A—PUPILS.

Tables 9 and 10 show the enrollment of pupils by sexes and by classes, and give the average numbers per school and per year for the several States. From these tables it is seen that the girls outnumber the boys in the school by almost exactly 10 per cent, the total enrollment showing 55.2 per cent girls and 44.8 per cent boys. In like manner the tables show the distribution by classes to be as follows: First-year students (freshmen) 38.02 per cent, second-year students (sophomores) 27.15 per cent, third-year students (juniors) 19.42 per cent, and fourth-year students (seniors) 15.39 per cent.

The typical North Central public school, therefore, enrolls 365 pupils, of whom 164 are boys and 201 are girls. Moreover, within this school the distribution by years is: First-year pupils 137, second-year pupils 97, third-year pupils 70, and fourth-year pupils 55. The more detailed analyses further show that the typical school enrolls 6 pupils who are classified as special, irregular, or graduate students.

TABLE 9.—*Total enrollment per State and the average enrollment per school in the accredited public schools.*

State.	Number of schools accredited.	Boys enrolled.		Girls enrolled.		Boys and girls enrolled.	
		Number.	Average per school.	Number.	Average per school.	Number.	Average per school.
Arizona	6	836	139	947	158	1,783	297
Colorado	36	5,469	152	6,897	192	12,366	344
Illinois	135	32,674	242	37,971	281	70,645	523
Indiana	79	13,731	174	16,371	277	30,102	381
Iowa	76	11,083	146	14,711	194	25,794	339
Kansas	67	8,489	127	12,885	192	21,374	319
Michigan	112	19,159	171	21,816	195	40,975	366
Minnesota	67	11,050	165	14,235	212	25,285	377
Missouri	52	11,016	212	14,721	283	25,731	495
Montana	25	2,384	107	3,615	145	6,270	251
Nebraska	57	5,512	97	7,656	134	13,168	231
New Mexico	4	241	60	336	84	577	144
North Dakota	30	1,749	58	2,579	85	4,328	144
Ohio	165	29,984	182	34,003	206	63,987	388
South Dakota	24	1,897	79	2,615	109	4,512	188
Wisconsin	92	13,278	144	16,283	177	29,561	321
Wyoming	5	418	84	599	120	1,017	203
Total	1,082	169,244	156	208,260	201	377,494	365
Percentage		44.8		55.2			

TABLE 10.—*Total enrollment per State and the average enrollment per year (class) in the accredited public schools.*

State.	Fourth year.		Third year.		Second year.		First year.	
	Enrolled.	Average per class.	Enrolled.	Average per class.	Enrolled.	Average per class.	Enrolled.	Average per class.
Arizona	220	37	329	55	407	68	637	106
Colorado	1,916	53	2,287	70	3,624	101	4,118	114
Illinois	9,347	80	11,711	87	18,250	135	29,439	218
Indiana	4,968	63	5,902	74	7,986	101	10,920	138
Iowa	4,475	59	5,301	70	6,794	89	9,150	120
Kansas	3,562	63	4,216	63	6,031	90	7,296	109
Michigan	5,475	49	7,436	66	10,282	92	14,890	133
Minnesota	4,278	64	4,844	72	6,573	98	9,273	138
Missouri	3,681	71	4,633	89	6,646	128	10,040	193
Montana	995	20	1,247	50	1,673	67	2,480	99
Nebraska	2,315	41	2,803	49	3,547	62	4,957	87
New Mexico	93	23	128	32	181	45	175	44
North Dakota	733	24	865	29	1,083	36	1,610	54
Ohio	8,194	50	12,280	74	17,382	105	21,935	133
South Dakota	819	34	890	37	1,153	48	1,630	68
Wisconsin	5,259	57	6,179	67	7,735	81	10,621	115
Wyoming	166	33	215	43	278	56	364	73
Total	56,496	55	71,266	70	99,625	97	139,535	137
Percentage	15.39		19.42		27.15		38.02	

In the analyses of the detailed statistics of pupil enrollments arranged in accordance with the classification of large, medium, and small schools (the tables omitted from this publication), some peculiar but significant conditions are revealed. Tables 11 and 12 show the summaries of these findings, but do not seek to disclose the situations within the several States.

Table 11 shows that the large schools enroll a greater percentage of boys than do either the medium or small schools, whereas both of the

smaller types of schools enroll greater percentages of girls than does the larger type of schools. These figures seem to indicate that in the smaller and medium sized cities and towns, drawing, as they do, many pupils from the rural districts, more girls are attracted to the schools than are boys. This fact may in turn be accounted for by reason of the possibly greater cultural ambitions of the girls of the country dis-

CHART VII.—Distribution of boys and girls in the accredited public schools.

tricts and of the small town when compared with the boys of these same localities, by the greater leisure at their command, by the pride of parents in having their daughters attend high school whether or not their sons can do so, or care to do so, and by the greater appeal to girls than to boys of the academic subjects in the typical program of studies. The last point may be stated thus. That the typical girl will accept the program of studies without complaint to a greater degree than will the typical boy.

It may be, of course, that the greater percentage of boys found in the large schools is due to the fact that in the cities of larger size more extensive and varied opportunities are afforded to secure quasi vocational and vocational training for boys than is afforded girls in the same school system or is afforded boys in the smaller school systems.

TABLE 11.—*Enrollment of pupils according to types of school.*

Type of school.	Number of schools.	Average size of school.	Average number of boys enrolled.	Per cent boys.	Average number of girls enrolled.	Per cent girls.
Large	234	899	417	46.4	482	53.6
Medium	559	251	108	43.0	143	57.0
Small	239	112	47	42.0	65	58.0
All types combined	1,032	365	164	44.8	201	55.2

Table 12 shows the distribution of pupils by classes within the several types of schools. The facts show clearly that a greater percentage of pupils (both boys and girls) remain throughout the third and fourth years of the medium and small schools than in the large schools. On the other hand, the percentage of first-year students in the large schools is noticeably greater than it is in either of the other two types of schools. The percentages of enrollment within the second year classes are nearly alike for all types of schools.

These facts seem to indicate that there is a greater persistence of school attendance in the medium and small places than in the large cities. Possibly the many social attractions outside the school in the large cities, together with the tendency in the cities for youths to aspire to economic independence at an early age, may explain the situation. It may, of course, mean that the schools of the larger places have produced a more adequate training for youths at an earlier age than is possible in the smaller type of school.

If the detailed data for the several States of the association territory were presented here,[1] it would be discovered that, omitting from consideration the eight distinctively nonurban States (namely, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, South Dakota, and Wyoming), over 40 per cent of the fourth-year classes, over 45 per cent of the third-year classes, and over 50 per cent of the second and first-year classes in the high schools of the association are receiving their instruction in the large schools. Correlatively, in the eight States mentioned above, the small schools enroll a relatively high percentage of the aggregate of the pupils in each of the four classes.

[1] These facts are revealed in the working papers of this study, but as explained before these papers could not be published here in all their details.

The facts seem to indicate, therefore, that the large schools of the association are exerting their influence on a much greater proportionate number of pupils of all classes than are the medium and small schools, although there are fewer of these schools than there are either of the medium or small type. Since the facts are as they are, the query arises: Ought not the association (while not neglecting the schools of the medium and small types) to set its standards quite largely in accordance with the possibilities realizable by the large schools? Should not its discussions bear more frequently than they do upon the special problems of these large schools? Or might it not be feasible and desirable to recognize officially the three types of schools designated here and to set separate groups of standards appropriate to the three types? Is, in other words, the association in its formulations ahead or behind the practices of the majority of the large schools? If the latter, is its procedure thoroughly defensible? Should not the association be a great stimulating force for *all* schools, and exert leadership among each and every type of school with which it sustains accrediting relations?

TABLE 12.—*Distribution of pupils, by classes, within the three types of public schools.*

Type of school.	Fourth year.		Third year.		Second year.		First year.	
	Average number of pupils.	Per cent.	Average number of pupils.	Per cent.	Average number of pupils.	Per cent.	Average number of pupils.	Per cent.
Large	117	13.67	160	18.64	238	27.60	344	39.98
Medium	43	17.41	50	20.26	66	26.58	89	35.72
Small	20	17.82	24	20.84	29	26.02	40	35.27
All types combined	55	15.39	70	19.42	97	27.15	137	38.02

Table 13 shows how the accredited schools are distributed, in respect to enrollment, in the several States. Thus, Illinois, with 135 public schools accredited, has 34.07 per cent of these classified as large schools; 51.85 per cent as medium-sized schools; and 14.07 per cent as small schools. With the exception of Colorado, Illinois, Missouri, and Ohio, no State has 25 per cent of the accredited schools in the first or large group. On the other hand, no State except North Dakota has a medium-sized group that contains fewer than 25 per cent of the total number, the range being 23.33 per cent to 66.66 per cent. Eleven States have 50 per cent or more of their schools included in this (medium) division.

Again, it is made evident that the association, in most of the States, draws its greatest support, in point of number of accredited schools, from the moderate-sized schools, simply because there are more of this type in the majority of the States.

TABLE 13.—*Classification of schools, by States, under the three divisions, large, medium, small.*

State.	Total number schools.	Large.		Medium.		Small.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Arizona	6	1	16.66	4	66.66	1	16.66
Colorado	36	9	25.00	15	41.66	12	33.33
Illinois	135	46	34.07	70	51.85	19	14.07
Indiana	79	19	24.05	48	60.75	12	15.20
Iowa	76	17	22.36	46	60.52	13	17.11
Kansas	67	11	16.41	46	68.65	10	14.92
Michigan	112	25	22.32	64	57.14	23	20.52
Minnesota	67	12	17.91	42	62.68	13	19.41
Missouri	52	16	30.76	25	48.07	11	21.15
Montana	25	4	16.00	8	32.00	13	52.00
Nebraska	57	2	3.51	36	63.15	19	33.33
New Mexico	4	0	.00	1	25.00	3	75.00
North Dakota	30	2	6.66	7	23.33	21	70.01
Ohio	165	49	29.69	83	50.30	33	20.01
South Dakota	24	1	4.16	12	50.00	11	45.83
Wisconsin	92	20	21.73	50	54.34	22	23.92
Wyoming	5	0	.00	2	40.00	3	60.00

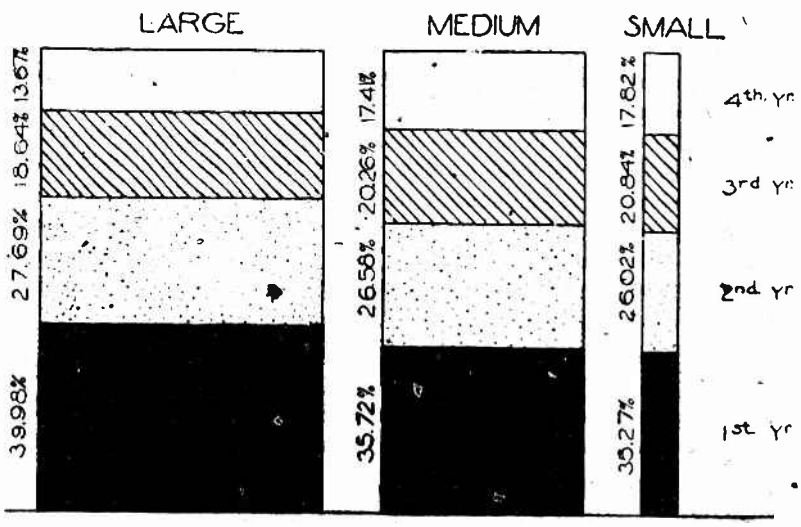


CHART VIII.—Distribution of pupils by classes in the three types of public schools.

Table 14 shows the percentages of distribution of pupils enrolled in the three types of schools in the several States. Thus Colorado, with 36 accredited public schools, enrolling 12,366 pupils, has 57.99 per cent of these attending the large schools, 30.56 per cent attending the medium-sized schools, and 11.06 per cent attending the small schools. Taking the entire list of the accredited public schools, it is observed that the large schools enroll 55.75 per cent of the total number of pupils, the medium schools 37.19 per cent, and the small schools 7.05 per cent. Thus again it is seen that the North Central Association is directly influencing, to the greatest extent, the education of the youths in the larger cities and towns.

TABLE 14.—*Percentages of pupils, by States, enrolled in the several types of schools, large, medium, small.*

State.	Number of schools.	Total enrollment.	Per cent enrolled in large schools	Per cent enrolled in medium schools.	Per cent enrolled in small schools.
Arizona	6	1,783	44.86	47.73	7.41
Colorado	36	12,366	57.99	30.56	11.06
Illinois	135	70,645	71.12	25.65	3.22
Indiana	79	30,102	53.49	43.49	3.02
Iowa	76	25,794	49.25	43.82	6.91
Kansas	67	21,374	39.29	53.75	6.95
Michigan	112	40,975	53.14	40.48	6.37
Minnesota	67	25,285	50.26	44.07	5.66
Missouri	52	25,231	70.59	24.35	5.06
Montana	25	6,279	39.35	39.83	20.82
Nebraska	57	13,168	25.40	59.89	14.71
New Mexico	4	577	.00	62.05	37.95
North Dakota	30	4,328	22.87	30.66	46.47
Ohio	165	63,987	62.11	32.48	5.41
South Dakota	24	4,512	11.63	62.94	25.43
Wisconsin	92	29,561	51.23	37.74	11.03
Wyoming	5	1,017	.00	60.18	39.82
Total	1,032	377,484			
Percentage			55.75	37.19	7.05

Table 15 shows the distribution of the pupils, by classes, among the several types of accredited schools. By referring to Table 10 it is seen that throughout the entire territory the percentages of class distribution are 38.02 per cent for the first or freshman year, 27.15 per cent for the second or sophomore year, 19.42 per cent for the third or junior year, and 15.39 per cent for the fourth or senior year. Table 16 shows to what extent the pupils of these several classes are coming under the peculiar and unique influences of the large, medium, and small schools, respectively. Thus, 57.68 per cent of all pupils in the first or freshman year in the high schools were, in 1916–17, enrolled in large schools; 35.47 per cent were enjoying the privileges of the medium schools; and 6.84 per cent were in the small schools. The table should be read in a similar manner for each of the other classes.

TABLE 15.—*Distribution of pupils, by classes or years, among the several types of accredited schools.*

Type of school.	Total number of pupils enrolled by years.				Percentage of pupils enrolled by years.			
	First.	Second.	Third.	Fourth.	First.	Second.	Third.	Fourth.
Large	80,484	55,747	37,543	27,629	57.68	55.95	52.68	48.72
Medium	49,498	36,830	28,078	24,128	35.47	36.96	39.39	42.70
Small	9,553	7,048	5,645	4,839	6.84	7.07	7.92	8.56

When the facts are considered in reference to types of schools, it is discovered that the large schools have a relatively high ratio of pupils to teachers, whereas the small schools have a relatively low ratio. Thus, in the large schools only 2.13 per cent have a ratio of pupils to teachers of less than 16 to 1, whereas 8.22 per cent of the medium schools have such a ratio, and, most remarkable, 39.74 per cent of the

small schools have such a ratio. At the other extreme, more than 21 per cent of the large schools have a ratio of pupils to teachers in excess of 25 to 1, whereas in the small schools the similar ratio is found in only 1.67 per cent of the schools.

These facts seem to indicate that the smaller schools provide a more adequate number of teachers to carry on their school work than do the larger schools. This conclusion does not, however, indicate whether or not the teachers of the smaller school systems have, in the aggregate, less school work to perform than have the teachers of the other types of schools. What is shown is that they are, proportionately speaking, responsible for the development of fewer pupils per teacher, but whether the facilities with which to accomplish this training and the length of time which they are expected to devote to school work each day are likewise more favorable to the teachers of the smaller schools are items not revealed here.

Table 16 shows the average number of pupils per teacher as based on the number of teachers and pupils belonging to the schools October, 1916. The table should be read as follows: Arizona with 6 accredited schools had 3 schools in which the ratio of teachers to pupils was 1 to 15 or less, 2 schools in which the ratio was 1 to something between 16 and 20, and 1 school in which the ratio was 1 to something between 21 and 25. So with each of the other States. However, the totals and the percentages are the most significant parts of this table. Taking the entire North Central public schools as a whole, the median ratio of teachers to pupils is 1 to something between 16 and 25, over 40 per cent of the schools having an enrollment of between 16 and 20 pupils per teacher, and approximately 37 per cent having an enrollment of between 21 and 25 pupils per teacher.

TABLE 16.—*Ratios of teachers to pupils enrolled.*

State.	Number schools reporting.	Schools having ratio of one teacher to—				
		15 pupils or fewer.	16 to 20 pupils.	21 to 25 pupils.	26 to 30 pupils.	Over 30 pupils.
Arizona	6	3	2	1	0	0
Colorado	36	6	10	20	0	0
Illinois	135	13	60	39	17	6
Indiana	79	8	38	31	2	0
Iowa	76	8	31	32	5	0
Kansas	67	14	29	21	4	0
Michigan	112	12	46	48	6	0
Minnesota	67	15	35	11	3	0
Missouri	52	1	20	23	6	2
Montana	25	11	9	5	0	0
Nebraska	57	2	32	19	4	0
New Mexico	4	2	2	0	0	0
North Dakota	30	19	9	2	0	0
Ohio	165	7	58	89	31	0
South Dakota	24	8	14	2	0	0
Wisconsin	92	13	33	36	8	0
Wyoming	5	1	2	2	0	0
Total	1,032	146	415	381	82	8
Percentage		14.08	40.21	36.91	7.75	0.77

NUMBERS GRADUATING.

In every State, except among the four medium schools of Arizona, the girls who graduated outnumbered the boys by rather notable margins. The same facts holds true if the comparison is made among the totals of the several types of schools or among the grand totals for the entire North Central territory. Of the 52,416 pupils who graduated in 1916, 58.15 per cent were girls and 41.85 per cent boys. Moreover, the tables show that the typical North Central public school graduates 51 pupils each year, and that of the total number of graduated, 50.71 per cent completed their work in large schools, 40.74 per cent in medium schools, and only 8.54 per cent in small schools. It is obvious, therefore, that, so far as the North Central

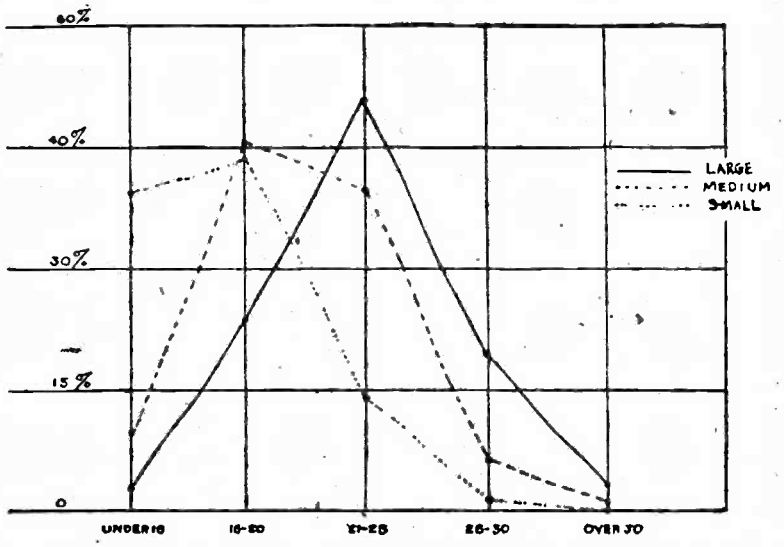


CHART IX.—Ratio of teachers to pupils enrolled in the three types of public schools. The graphs represent the percentages of schools having a ratio of one teacher to the several numbers of pupils mentioned.

schools are concerned, the larger and medium types of schools are perpetuating their ideals and influences approximately nine times as extensively as the smaller schools.

The last column of percentages in Table 18 shows the variations based on the total enrollment in the several types of schools. That is, 12.63 per cent of the entire enrollment in the large schools in 1916–17 were graduated in 1916; in the medium schools the numbers were slightly larger, being 15.21 per cent of the entire enrollment; and in the small schools the percentage is still greater, being 16.82 per cent of the entire enrollment. In each case, of course, the percentage of graduates is computed on the enrollment of the schools as the figures revealed it the school year following the listing of the grad-

uating class. Hence the percentages are but close approximations to the true percentages, since the enrollments on the schools show in general a slight increase each year. Since, however, the percentages given here are based on the larger enrollment of the year following graduation and not the enrollment of the current year of graduation, the percentages are too small rather than too large. Using the figures as they are, it is observed that approximately 14 per cent of all pupils in the North Central Association high schools graduate from those schools each year.

TABLE 17.—*Number of graduates in 1916, and the average number per school.*

State.	Total graduates.	Average per school.	State.	Total graduates.	Average per school.
Arizona	196	33	Montana	778	31
Colorado	1,796	50	Nebraska	2,294	40
Illinois	8,062	60	New Mexico	73	18
Indiana	4,628	67	North Dakota	632	21
Iowa	3,922	52	Ohio	9,178	55
Kansas	3,068	46	South Dakota	782	33
Michigan	5,621	50	Wisconsin	4,[illegible]	49
Minnesota	3,699	55	Wyoming	[illegible]	28
Missouri	3,079	59			
			Total	52,416	51

TABLE 18.—*Number of graduates in 1916 by type of school.*

Schools.	Boys.		Girls.		Total.	Per cent of all.	Per cent of own enrollment.
	Number.	Per cent.	Number.	Per cent.			
Large schools	11,479	42.80	15,103	57.20	26,582	50.71	12.63
Medium schools	8,663	40.56	12,692	59.44	21,355	40.74	15.21
Small schools	1,799	40.16	2,680	59.84	4,479	8.54	16.82
Total	21,941	41.85	30,475	58.15	52,416	100.00	13.88

NUMBER ENTERING COLLEGE.

Table 19 shows the number and percentages of graduates in 1916 who in the fall of that same year entered higher institutions of learning.

When it is kept in mind that high-school graduates frequently and in large numbers defer entrance to college beyond the autumn immediately following graduation, the figures revealed by Table 19 are truly remarkable. In every State except Nebraska more than one-third of the graduates of the class of 1916 had within four months entered colleges and other institutions of higher learning.

Moreover, there is but little difference to be noted among the several types of schools. Each one is, to a large degree, a preparatory school for colleges. There are, however, a few conspicuous extremes. Arizona with only 6 accredited schools makes a showing both here and in other tables which can scarcely be regarded as characteristic of all the schools in the State. The 13 small schools of Minnesota

really have the most remarkable records, since 242, or 89.6 per cent, of the 270 pupils graduating in 1916 entered college immediately.

When a total of 52,416 students graduate from North Central public schools in one year, and of these 20,201, or 38.5 per cent, enter institutions of higher learning, it augurs well for the continuance of these agencies. It likewise shows the futility (if it were anywhere desired), of seeking to administer institutions of higher learning without inviting and securing the cooperation of the vast army of secondary school teachers and administrators themselves; certainly so in respect to problems of mutual concern, such as curriculum offerings and admission prescriptions.

Using the enrollment in the schools in the fall of 1916 as a base (the fall following the time when the lists of graduates included here were computed), the results show that 5.35 per cent of the entire enrollment in the North Central Association schools annually graduate and enter colleges and universities *immediately*.

TABLE 19.—*Number of pupils graduating in 1916 who in the fall of 1916 entered institutions of higher learning.*

State.	Graduates in 1916.	Entering college in fall of 1916.	Per cent going to college.	State.	Graduates in 1916.	Entering college in fall of 1916.	Per cent going to college.
Arizona	196	131	66.8	Nebraska	2,294	584	25.2
Colorado	1,796	760	42.3	New Mexico	73	32	43.8
Illinois	8,062	2,980	36.9	North Dakota	632	255	38.6
Indiana	4,628	1,705	36.8	Ohio	9,178	3,654	39.8
Iowa	3,922	1,368	34.8	South Dakota	782	331	42.3
Kansas	3,068	1,229	40.0	Wisconsin	4,467	1,899	42.5
Michigan	5,621	2,105	37.4	Wyoming	141	57	40.4
Minnesota	3,699	1,517	41.0				
Indiana	3,079	1,286	41.7	Total	52,416	20,201	38.50
Montana	778	308	39.5				

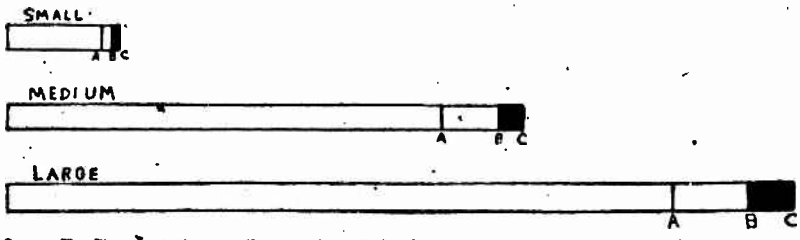


CHART X.—Shows relative enrollments of pupils in the three types of schools (the entire surfaces), the numbers of graduates in 1916 (surfaces AC), and the numbers of graduates who in the fall of 1916 entered colleges (surfaces BC).

NONRESIDENT PUPILS.

Table 20 shows the number of nonresident pupils attending the several types of schools. While in scarcely a single instance is a school to be found which does not include some nonresident pupils, the larger percentages of such pupils are found, as probably would be expected, in the small schools. Here the range is from 2.9 per

cent of the entire enrollment (in the small schools of Wyoming) up to 33.6 per cent of the enrollment (in the small schools of Michigan). A very high percentage of nonresident pupils also is to be found in both the small and the medium schools of Indiana, Iowa, Michigan, Missouri, Nebraska, Ohio, and Wisconsin, in all of which the range is from 22 per cent to over 30 per cent of the entire enrollment. If all types of schools within the State be taken into account, Nebraska with a percentage of 21.4, North Dakota with a percentage of 20.5, and South Dakota with a percentage of 18.7, take the lead over all the other North Central States. The data clearly show the results of the operation of the numerous free tuition laws in force throughout

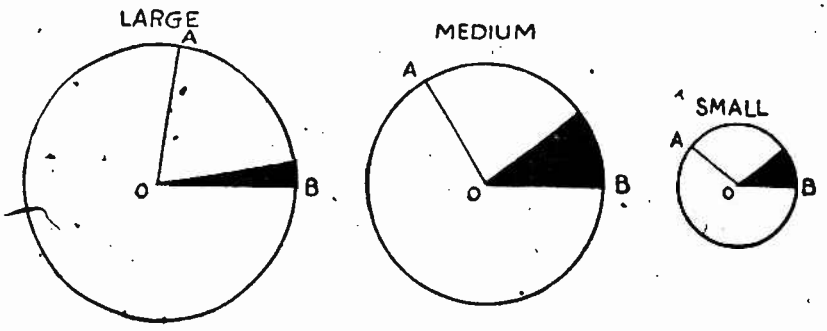


CHART XI.—Relative number of nonresident pupils attending the three types of schools. Total areas represent the total number of pupils, areas in the circles being in proportion to the number of pupils attending each type.

the country. The sons and daughters of rural settlers are not having their educational interests neglected. The consolidated rural high school may not be an accomplished fact in many quarters, but the figures here given indicate that the existing town and city schools are, to all intents and purposes, being utilized as consolidated schools for the entire surrounding community, since in the typical school 13.75 per cent of all pupils enrolled are classified as nonresident pupils. Moreover, in some States, notably Illinois, the very organization of many schools on the basis of townships is tending to the same ends. In such districts, of course, the reports, of necessity, show a small percentage of nonresident students.

Table 21 brings the total percentages by States into more compact form.

TABLE 20.—*Number of nonresident pupils attending the public schools, and ratio of these pupils to the entire enrollment.*

State.	Number of schools.	Total enrollment.	Number nonresident.	Per cent nonresident.
Arizona:				
Large	1	800	0	0.0
Medium	4	850	12	1.4
Small	1	133	13	9.8
Total	6	1,783	25	1.4
Colorado:				
Large	9	7,220	364	5.0
Medium	15	3,779	453	11.9
Small	12	1,367	126	9.3
Total	36	12,366	943	7.6
Illinois:				
Large	46	50,246	2,102	4.0
Medium	70	18,123	3,199	17.6
Small	19	2,276	439	19.2
Total		70,645	5,740	8.1
Indiana:				
Large	19	16,071	1,656	10.3
Medium	48	13,089	3,076	23.5
Small	12	942	290	30.7
Total	79	30,102	5,022	16.6
Iowa:				
Large	17	12,704	1,096	8.6
Medium	46	11,301	3,078	27.2
Small	13	1,789	534	29.8
Total	76	25,794	4,708	18.2
Kansas:				
Large	11	8,398	894	10.7
Medium	46	11,756	2,510	21.3
Small	10	1,220	181	14.8
Total	67	21,374	3,585	16.7
Michigan:				
Large	25	21,776	2,331	11.0
Medium	64	16,485	3,908	23.7
Small	23	2,714	918	33.6
Total	112	40,975	7,157	17.4
Minnesota:				
Large	12	12,709	625	4.9
Medium	42	11,144	2,201	19.7
Small	13	1,432	315	22.0
Total	67	25,285	3,141	12.4
Missouri:				
Large	16	17,811	325	18.5
Medium	25	6,143	1,371	22.3
Small	11	1,277	360	28.1
Total	52	25,231	2,056	8.20
Montana:				
large	4	2,471	292	11.8
Medium	8	2,501	286	11.4
Small	13	1,307	316	24.1
Total	25	6,279	894	14.2
Nebraska:				
Large	2	3,345	187	5.6
Medium	36	7,887	2,086	26.5
Small	19	1,936	549	28.4
Total	57	13,168	2,822	21.4
New Mexico:				
Large				
Medium	1	358		
Small	3	219	13	5.9
Total	4	577	13	2.2
North Dakota:				
Large	2	990	94	9.5
Medium	7	1,300	259	19.9
Small	21	2,038	533	25.6
Total	30	4,328	886	20.5
Ohio:				
Large	49	39,744	3,000	7.5
Medium	83	20,785	5,207	25.1
Small	33	3,458	883	25.5
Total	165	63,987	9,090	14.2
South Dakota:				
Large	1	525	55	10.4
Medium	12	2,840	522	18.4
Small	11	1,147	267	23.7
Total	24	4,512	844	18.7
Wisconsin:				
Large	20	15,145	1,139	7.5
Medium	60	11,453	2,849	24.8
Small	22	2,963	924	31.2
Total	92	29,561	4,912	16.6
Wyoming:				
Large				
Medium	2	612	63	10.2
Small	3	405	12	2.9
Total	5	1,017	75	7.3
Grand total:				
Large	234	210,455	14,160	6.72
Medium	559	140,406	31,080	22.13
Small	249	26,623	6,673	25.06
Total	1,042	377,484	51,913	13.75

TABLE 21.—*Total enrollment, number of nonresident pupils, and ratio of these pupils to the enrollment.*

State	Schools.	Enrollment.	Nonresidents.	Per cent nonresidents.
Arizona	6	1,783	25	1.4
Colorado	38	12,386	943	7.6
Illinois	135	70,645	5,740	8.1
Indiana	79	30,102	5,022	16.6
Iowa	76	25,794	4,708	18.2
Kansas	67	21,374	3,585	16.7
Michigan	112	40,975	7,157	17.4
Minnesota	67	25,285	3,141	12.4
Missouri	52	25,231	2,056	8.2
Montana	25	6,279	894	14.2
Nebraska	57	13,168	2,822	21.4
New Mexico	4	577	13	2.2
North Dakota	30	4,328	886	20.5
Ohio	165	68,987	9,090	12.6
South Dakota	24	4,512	844	18.7
Wisconsin	92	29,561	4,912	16.6
Wyoming	5	1,017	75	7.3
Total	1,032	377,484	51,913	13.75

DIVISION B—THE TEACHERS.

SCHOOL POLICIES RESPECTING TEACHERS.

Each year recently the association in gathering its report has sought to put each school on record regarding its avowed policies respecting certain important aspects of administration. In the blank submitted in 1916-17 the following two questions were asked, namely:

(*a*) Is it the avowed future policy of the school to employ, for academic subjects, none but college graduates with professional training? (See Standard 2A and B.)

(*b*) Is it the avowed future policy of the school to maintain the ratio of teachers to pupils at approximately 1 to 25?

With the exception of four schools in Wisconsin (one small and three medium schools), the replies to the first question were unanimously in the affirmative. In like manner but one school (in Michigan) replied other than affirmatively to the second question. That all schools have actually lived up to the ideals they themselves have thus voluntarily approved is not the case, as will be seen by reference to later analyses in this study. That they have deliberately sought to evade standards is, however, very much to be doubted.

NUMBER OF TEACHERS.

Table 22 shows the number of teachers employed in the accredited schools of the various States, classified first by sexes and second by character of work taught.

The typical North Central school employs 17.6 teachers, 12 for academic work and 5.6 for vocational work, as defined by the association.[1] Of those teachers, 6.8 are men and 10.8 are women.

[1] Manual training, household arts, drawing, music, agriculture, and distinctively trade subjects.

The more detailed tables reveal decided contrasts among the types of schools. For example, the typical large school has a corps of 38.4 persons; the typical small school, one of 7.7 persons. The typical large school has 26.3 persons giving instruction in academic subjects and 12.7 persons giving instruction in vocational subjects. In the small school 5.6 persons teach academic branches, and 2.6 persons teach vocational subjects. When, however, the percentages are considered, there is little deviation from the norms by any of the three types of schools. Women teachers outnumber men teachers approximately in the ratio of 3 to 2, and the academic teachers outnumber the vocational teachers nearly in the ratio of 3 to 1.

The summarizing figures show that 38.25 per cent of all the teachers of the association are men; 61.75 per cent are women; 67.36 per cent teach academic subjects, and 32.64 per cent teach vocational subjects.

TABLE 22.—*Number of teachers employed and the averages per school.*

State.	Men.		Women.		Total.		Academic.		Vocational.	
	Number.	Average per school.	Number.	Average per school.	Number.	Average per school.	Total.	Average per school.	Total.	Average per school.
Arizona	42	7	61	10	103	17	64	11	38	6
Colorado	239	7	364	10	603	17	435	12	184	5
Illinois	1,209	9	1,837	14	3,046	22	1,980	15	1,071	8
Indiana	654	8	926	12	1,580	21	1,039	13	601	8
Iowa	410	5	844	11	1,254	17	894	12	386	5
Kansas	303	6	625	9	1,018	15	681	10	344	5
Michigan	747	7	1,308	12	2,055	18	1,420	11	644	6
Minnesota	476	7	836	12	1,311	20	830	12	478	7
Missouri	452	9	639	12	1,091	21	751	14	354	7
Montana	126	5	231	8	357	14	245	10	123	5
South Dakota	102	4	166	7	268	11	189	8	85	4
North Dakota	105	4	201	7	306	10	200	7	102	3
Nebraska	226	4	453	8	679	12	498	9	200	4
New Mexico	16	4	39	10	55	14	38	10	17	4
Ohio	1,216	7	1,604	9	2,820	11	2,144	10	911	6
Wisconsin	482	5	994	11	1,476	16	974	11	459	5
Wyoming	21	4	36	7	57	11	38	8	19	4
Total	6,916	6.7	11,163	10.8	18,079	17.6	12,420	12.0	6,007	5.8
Percentage	38.25	.....	61.75	.....	.....	.....	67.36	.....	32.64	.....

TABLE 23.—*Number of teachers, in percentages, distributed by sexes and by subject matter taught.*

Type of school.	Men teachers.	Women teachers.	Academic teachers.	Vocational teachers.
Large	39.43	60.57	67.44	32.36
Medium	36.97	63.03	67.00	33.00
Small	37.73	62.27	68.27	31.73
Total	38.25	61.75	67.36	32.64

TABLE 24.—*Average number of teachers per school, distributed by sexes and by subject matter taught.*

Type of school.	Men per school.	Women per school.	Men and women.	Teaching academic subjects.	Teaching vocational subjects.
Large	15.1	23.3	38.4	26.3	12.7
Medium	4.8	8.2	13.0	8.8	4.3
Small	2.9	4.8	7.7	5.6	2.6
Total	6.8	10.8	17.6	12.0	5.6

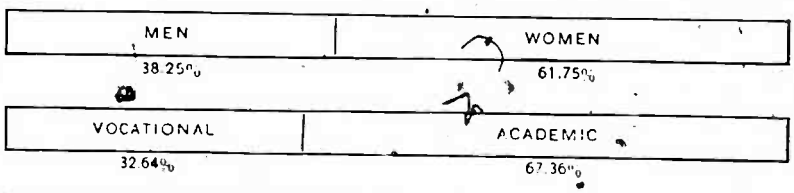


CHART XII.—Shows graphically the percentages of the previous tables, namely the relative number of men and women teachers and the relative number of academic and vocational teachers.

PERMANENCY IN STAFF.

A principle of the association makes no ruling respecting standards of accrediting retroactive upon the schools. The association does, however, seek to enforce rigidly any standard once established and accepted by an accredited school. In consequence of this policy, many teachers who do not technically meet the published standards of qualification are, nevertheless, because of their long connections with accredited schools, left undisturbed in their positions. Not so, however, in respect to teachers brought into the corps after the school has once been accredited. Such teachers are expected, in all respects, to meet the standards of the association literally. In consequence the association in gathering data and in classifying teachers distinguishes between *new* teachers (i. e., those new to the given school that year) and teachers who have been employed in previous years. Table 25 gives the numbers of such teachers in the accredited schools in 1916–17.

TABLE 25.—*Total number new teachers.*

State.	Academic.		Vocational.		Total.	
	Number.	Average per school.	Number.	Average per school.	Number.	Average per school.
Arizona	22	4	11	2	33	6
Colorado	115	3	58	2	173	5
Illinois	401	3	288	2	689	5
Indiana	287	4	153	2	440	5
Iowa	254	3	124	2	378	5
Kansas	187	3	125	2	312	3
Michigan	382	3	181	2	563	5
Minnesota	208	3	128	2	336	5
Missouri	151	3	66	1	217	4
Montana	60	2	43	1	103	4
Nebraska	172	3	81	1	253	4
New Mexico	14	4	6	2	20	5
North Dakota	70	2	53	2	123	4
Ohio	332	2	273	2	605	4
South Dakota	59	2	30	1	89	4
Wisconsin	252	3	121	1	373	4
Wyoming	25	5	6	1	31	5
Total	[1] 2,991	2.0	[2] 1,747	1.6	4,738	4.5

[1] 63.12 per cent. [2] 36.88 per cent.

The extent to which schools are subjected to annual changes in the personnel of their teachers is always an important item in judging of the efficiency of the system. From these tables it is seen that 24.04 per cent of the academic teachers were new to the given school system in 1916; that 29.09 per cent of the vocational teachers were likewise new; and that combining the entire force—academic and vocational—25.69 per cent were new. These figures are impressive. From one-fifth to one-fourth of the entire corps, considered either from the viewpoint of academic instruction, vocational instruction, or the combined instruction, is shifting each school year. What should be the normal changes in teaching staffs due to deaths, retirements, and accessions because of increased pupil enrollments is an undetermined number. It seems certain, however, that the present fluctuations are due, to a large degree, to other causes, not the least significant of which is the economic one. Until boards of education establish salary schedules that are as favorable as the best, the shiftings in the teaching corps are likely to continue.

Perhaps counter to common opinion, the highest percentages of shiftings in the teaching corps are not found in the small schools. Certainly this seems to be the case in respect to academic teachers. It is in the medium-sized schools—those with enrollments between 151 and 450—that the greatest loss is sustained. Here 32.03 per cent were new to the particular school system in the year we are considering. If these changes come (as we doubtless have just reason to believe) largely because the larger systems are constantly recruiting their forces from the smaller systems, it is very logical that the very large schools should draw talent from the medium-sized schools to a

greater degree than from the small schools, or indeed than the medium schools should from those of the lower group. The conclusion seems to follow that large schools prefer to secure experienced teachers in large numbers from fairly good-sized schools, but that medium-sized schools prefer to take inexperienced persons direct from college and university rather than to choose, in any preponderating numbers, from among teachers in the small schools. In other words, the teacher of academic work who enters the small school has less opportunity or likelihood for advancement into the larger systems than has the teacher who begins her work in a fairly good-sized school system. The fact may be, of course, that the ones who begin school work in the small schools are frequently the ones who, because of inferior personalities or abilities, have been rejected by the employing agents of the larger systems. Casual experience, however, seems not to sustain this contention except within definite limits.

It is fair, also, to raise the query whether matrimony is a factor which operates with greater havoc among teachers of one type of schools than of another. It is conceivable that the greater percentages of shiftings among teachers in the medium schools may be due as much to this cause as to the "poachings" of the larger schools. The fact is that young women of vigorous personalities, spirit, and winsomeness can often be more readily secured by medium schools than by large or by small schools, because their salary schedules are usually higher than those of the small schools, and because, secondly, they are less often restricted in their choice of teachers by rules requiring candidates with previous teaching experience—something not uncommonly and unswervingly demanded by the large schools. Nothing, of course, in this study throws any direct light on the question here raised.

Among teachers of vocational subjects not only is there everywhere a greater annual change in position than among academic teachers, but the changes increase notably from the large systems, through the medium to the small. The tables show that 39.64 per cent of these teachers in the small schools were new in 1916, whereas 34.03 per cent and 22.85 per cent are new respectively to the medium and large schools. There seems to be but one of two conclusions to draw from these figures: Either vocational work is being added to all systems at an enormous rate of speed, thereby calling for the annual addition of many new teachers, or else this type of teacher is not continuing long in the teaching profession. It might, of course, indicate that a third factor is at work, namely, that schools of all three types are bidding against each other for the services of vocational teachers, with the large schools drawing heavily from the other types. It seems very probable, however, that with business agencies constantly on the alert to discover the skilled worker with leadership

qualities—the men and the women who can do practical things in a practical manner—a very large per cent of the losses to the schools can be traced to the promises of more lucrative positions in the industrial and commercial fields.

Again, it is evident that if the schools are to retain the best talent they must offer inducements of an economic kind that are as attractive as those held out in the business world.

The ratio of new academic and new vocational teachers (Table 27) also throws additional light on the question. In the large and the medium-sized schools the percentage of new academic teachers is from one-third to nearly one-half greater than the percentage of new vocational teachers; in the small schools this ratio is almost exactly reversed. Again the conclusion is certain that vocational teachers do not remain long in the small schools.

The Judd-Counts study for 1913–14 (pp. 55 and 56) shows the total number of new teachers—academic and vocational—to have been 3,661, which number is 26.07 per cent of the entire corps of teachers of that year. The present study shows the percentage based on similar data to be 25.69, indicating that there is no greater total shifting of positions to-day than three years ago.[1] Whether the changes among the different types of schools were similar in number to those made in 1916 the data of the Judd-Counts study do not reveal.

TABLE 26.—*Distribution of new teachers among the three types of schools.*

Type of school.	Academic teachers.			Vocational teachers.			Academic and vocational.
	Total number.	Total new in 1916–17.	Per cent new in 1916—17.	Total number.	Total new in 1916–17.	Per cent new in 1916–17.	Per cent of both academic and vocational teachers new in 1916–17.
Large	6,145	901	14.66	2,966	678	22.85	17.33
Medium	4,914	1,574	32.03	2,418	823	34.03	32.60
Small	1,341	607	22.89	623	247	39.64	28.20
All	12,400	2,982	24.04	6,007	1,748	29.09	25.69

TABLE 27.—*Distribution of new teachers between the two types of school work, academic and vocational.*

Type of school.	New academic teachers.	New vocational teachers.
Large	57.06	42.94
Medium	65.62	34.38
Small	40.71	59.29
All types	63.12	36.88

[1] These percentages are not based on precisely the same groups of facts, since in this particular study the 87 nonpublic schools are not included. In the Judd-Count study all accredited schools were included. The variations in data must, however, be negligible.

TRAINING AND EXPERIENCE OF NEW TEACHERS.

Tables 28 and 29 show the training and teaching experience of the *new* academic teachers.

An analysis of these tables shows that the number of new teachers of the academic subjects without college degrees is small, being 4.98 per cent of the entire group of new academic teachers and 1.19 per cent of the entire corps of academic teachers. The number without the prescribed amount of professional training is slightly larger, being 12.3 per cent of the whole group of new academic teachers and 2.96 per cent of the entire staff of academic teachers.

While the violations of the standards respecting the academic and professional qualifications of new academic teachers are not alarming in point of numbers, (and doubtless were either explained away before the Commission on Secondary Schools or were made the bases for appropriate action), still the tables show that the small schools are less guilty of violations of these kinds than either of the other two types of schools. The largest percentage of new academic teachers without college degrees is found among the medium schools (6.09 per cent); the largest percentage of violations of the standard respecting professional training is found among the large schools (19.31 per cent). It is to be noted, too, that some States are flagrant violators of the association's standards.

The question pertinently arises: Should the association modify its standards respecting the collegiate and professional training of teachers, or should it take more thorough means of discovering violations and more drastic steps in penalizing offenders? There is little doubt that many violations of standards are camouflaged by persons making out the reports; so that often only a very critical analysis of the report as a whole will reveal the violations. The commission, in its short session and in its press of business, can not always be certain of discovering irregularities.

Moreover, and as a circumstance which tends to minimize the seriousness of the apparent disregard of the standards of the association, teachers of science were, until 1916, not made subject to the ruling requiring bachelor's degrees. This exception was made because at that time it seemed absolutely impossible to secure enough teachers of science who could meet the higher ideal. Once the principle of equivalency was recognized, it was extended to teachers who, once approved, changed their location to other school systems. The tables in this study take no account of the facts of "equivalency," but class teachers in accordance with the technical standards of the association.

Tables 28 and 29 also reveal the percentages of new academic teachers who had had no previous teaching experience. As would be expected, the large schools, to a conspicuous degree, seem to refuse to employ new teachers until they have proven their teaching skill in other school systems. The result is that only 9.65 per cent of the new academic teachers of the large schools are without previous teaching experience, whereas in the medium and small schools the percentages of inexperienced teachers are, respectively, 28.21 per cent and 25.44 per cent. The average percentage of the new academic teachers throughout the association is 22.06 per cent. Wisconsin and Michigan seem to be the two States which lead in the employment of inexperienced teachers.

TABLE 28.—*Training and experience of all new academic teachers.*

State.	Total number of new academic teachers.	Number without college degree.	Number without 11 hours professional training.	Number without previous teaching experience.
Arizona	22	0	1	4
Colorado	115	5	25	18
Illinois	401	32	89	66
Indiana	277	17	61	30
Iowa	254	3	11	42
Kansas	187	17	22	41
Michigan	382	14	31	103
Minnesota	208	0	14	31
Missouri	151	4	16	23
Montana	60	1	4	2
Nebraska	172	9	4	25
New Mexico	14	1	0	0
North Dakota	70	0	3	12
Ohio	333	14	55	96
South Dakota	59	2	5	9
Wisconsin	252	20	27	157
Wyoming	25	1	0	1
Total	2,982	149	368	660
Percentage		4.98	12.30	22.06

TABLE 29.—*Academic and professional training of new academic teachers, distributed by [illegible] schools, and their teaching experience.*

Type of schools.	Without college degree.		Without 11 hours, professional training.		Without previous teaching experience.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Large	33	3.99	174	19.31	87	9.65
Medium	96	6.09	159	10.10	444	28.20
Small	17	3.35	35	6.90	129	25.44
Total	149	4.98	368	12.30	660	22.06

For the sake of ready comparison the salient facts pertaining to the qualifications of teachers as revealed in the Judd-Counts study of 1914 are reproduced here (Table 30).

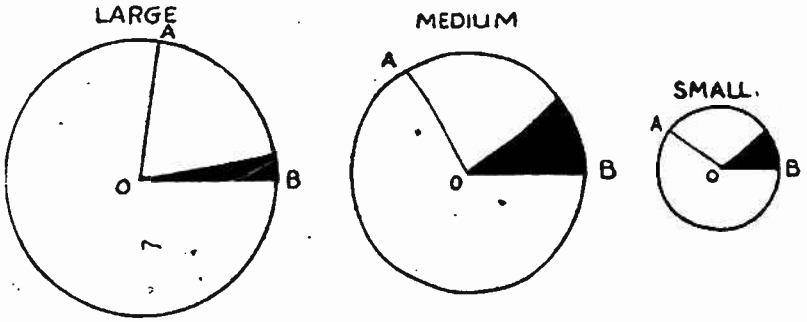


CHART XIII.—Shows graphically the relative number of teachers in the three types of schools, the numbers new to the given system in 1916, and the numbers of new teachers who had had no previous teaching experience. The entire areas represent the total number of teachers. The areas A O B represent the number of new teachers. The dark areas represent the number of new *inexperienced* teachers.

TABLE 30.—*Summaries from the Judd-Counts study, 1914.*

Reproduced in abridged form from Table XI of the Judd-Count study (p. 55). Shows certain statistics respecting the training of teachers according to the North Central Association reports for the year 1913–14.]

Total number of teachers reported (public and nonpublic schools)	14,042
Number *new* teachers (academic and vocational)	3,661
New teachers without teaching experience previously	854
New teachers (academic and vocational) without special professional training	314
New teachers (academic and vocational) not college graduates	573
Old teachers (academic and vocational) not college graduates	1,688
Old teachers (academic and vocational) without special professional training	694
Total teachers not college graduates	2,261
Total teachers without special professional training	1,008
Per cent new teachers (academic and vocational)	26.2
Per cent new teachers (academic and vocational) inexperienced	23.3
Per cent new teachers (academic and vocational) without professional training	8.6
Per cent new teachers (academic and vocational) not college graduates	15.7
Per cent old teachers (academic and vocational) not college graduates	16.3
Per cent old teachers (academic and vocational) without professional training	6.7
Per cent of *all* teachers (academic and vocational) not college graduates	16.2
Per cent of *all* teachers (academic and vocational) without professional training	7.8

TRAINING OF TEACHERS NOT NEW TO THE GIVEN SYSTEM.

Tables 31 and 32 show the training of academic teachers who were *not* new to the respective school systems when the reports were filed.

These tables show that only 10.31 per cent of the teachers not new to the given systems are without college degrees, and that but 20.14 per cent are without professional training equal to the standards set by the association for new teachers. Again, as probably

would be expected, a smaller per cent of the older teachers in the large schools are without college degrees than among the teachers of either of the other two types of schools. On the other hand, a much greater percentage of the older teachers of the large schools are without professional training than is to be found in either of the other two types of schools, particularly in the small schools.

As has already been shown, the changes in the teaching corps are much less marked in the large school than in the other types of schools. Hence we may feel sure the teachers of the large schools have entered the system, in many cases, before the recent demand for the professional training for high-school teachers became prominent. On the other hand, the older teachers of the small and medium schools have not, generally speaking, had so extended a teaching experience as the experienced teachers in the large schools have had. Hence only a small percentage (7.31 per cent) even of the experienced teachers of the small schools have entered upon their work before the opportunities for professional training were made available in recent years.

The tables show, too, that, generally speaking, fewer teachers in the States of the extreme West are lacking in the qualifications set by the association than are the teachers of the central and eastern portion of the North Central territory.

TABLE 31.—*Training of academic teachers not new to the given system, by States.*

State.	Total not new.	Without college degree.	Without 11 hours professional training.	State.	Total not new.	Without college degree.	Without 11 hours professional training.
Arizona	42	2	2	Nebraska	326	34	71
Colorado	320	21	98	New Mexico	24	1	0
Illinois	1,563	160	331	North Dakota	130	2	10
Indiana	752	109	170	Ohio	1,812	156	399
Iowa	640	49	92	South Dakota	130	9	7
Kansas	494	50	60	Wisconsin	722	88	78
Michigan	1,028	134	232	Wyoming	13	1	0
Minnesota	622	26	127	Total	9,416	971	1,897
Missouri	680	110	191	Percentage		10.31	20.14
Montana	165	16	29				

TABLE 32.—*Professional training of academic teachers not new to the given school systems, by types of schools.*

Types of schools.	Number without college degree.	Percentage.	Number without 11 hours of professional training.	Percentage.
Large	402	9.40	1,395	26.61
Medium	393	11.76	441	13.20
Small	86	10.19	61	7.31
Total	971	10.31	1,897	20.14

EXPERIENCE OF TEACHERS.

Tables 33–35 pertain to the experience of both academic and vocational teachers of all types, classified in accordance with the length of experience. Table 36 shows the summaries of these tables.

Taken as an association, the North Central schools only rarely employ teachers without mature experience. The tables show that fewer than 5 per cent of all the teachers were teaching their first school, whereas more than half of them had had more than six years' experience. Of this last-mentioned group, approximately one-fifth (19.8 per cent) had taught more than 15 years.

As would be expected, too, the immature and inexperienced teachers are found in greater numbers, relatively speaking, in the small schools. Here more than one-third of the entire number had had less than three years' experience, and nearly one-tenth (9.52 per cent) were teaching for the first time. On the other hand, the large schools have more than one-fourth of their teachers who have taught in excess

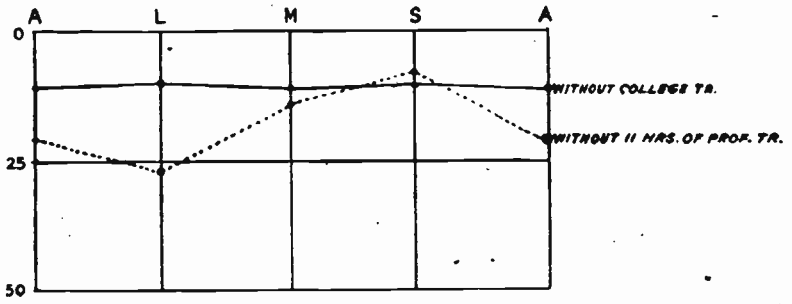


CHART XIV.—Training of academic teachers who were not new to the given school system in 1917 (in percentages). A=entire association; L=large schools; M=medium schools; S=small schools.

of 15 years each, and nearly seven-tenths of the entire corps have taught six years or longer. Even in the medium schools the numbers of relatively inexperienced teachers are few (7.30 per cent), while those with more than 6 years' experience equal nearly 45 per cent of the total number.

Comparing the total number of teachers who were inexperienced in 1916–17 with the number inexperienced in 1913–14 (according to the Judd-Counts study, as shown here in Table 30), a slight change only is seen. In 1913–14 the percentage was 6.08, as against 4.90 per cent in 1916–17. Whether a greater number of the inexperienced teachers in the latter year had taken courses in practice teaching in college and university there is no way of knowing. Since courses of that type have been multiplied each recent year, it is reasonable to think that more inexperienced teachers employed within the association territory had secured the training. If so, the conditions (so far as the association is concerned) are decidedly improving.

TABLE 33.—*Teaching experience of teachers in the large schools, academic, and vocational, new and not new teachers combined.*[1]

State.	Number of schools.	Teachers with no previous experience.	Number with less than 3 years.	Number with 3 but less than 6 years.	Number with 6 but less than 15 years.	Number with more than 15 years.
Arizona	1	0	4	4	15	18
Colorado	9	6	21	41	116	116
Illinois	46	42	187	334	721	615
Indiana	19	12	86	152	286	217
Iowa	17	8	41	120	216	112
Kansas	11	8	54	86	135	72
Michigan	25	21	104	177	432	302
Minnesota	12	5	46	74	268	171
Missouri	16	9	31	87	318	26
Montana	4	1	6	25	73	17
North Dakota	2	0	3	10	25	16
Nebraska	2	1	22	19	46	57
Ohio	49	28	120	236	609	488
South Dakota	1	0	3	45	16	4
Wisconsin	20	22	91	148	280	137
Total	234	163	819	1,608	3,578	2,386
Percentage		1.90	9.57	18.79	41.82	27.80

[1] New Mexico and Wyoming have no "large" schools.

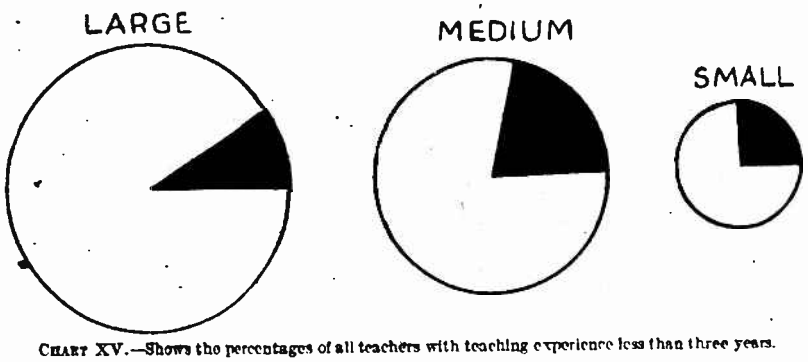


CHART XV.—Shows the percentages of all teachers with teaching experience less than three years.

TABLE 34.—*Teaching experience of teachers in the medium schools, academic and vocational, new and not new teachers combined.*

State.	Number of schools.	Teachers with no previous experience.	Number with less than 3 years.	Number with 3 but less than 6 years.	Number with 6 but less than 15 years.	Number with more than 15 years.
Arizona	4	0	4	20	21	3
Colorado	15	11	37	66	66	25
Illinois	70	63	189	281	260	136
Indiana	48	30	128	53	201	134
Iowa	46	56	148	180	147	53
Kansas	46	51	130	162	166	59
Michigan	64	90	175	230	201	84
Minnesota	42	39	153	213	200	43
Missouri	25	17	67	79	94	43
Montana	8	2	15	35	59	15
North Dakota	7	3	20	28	28	6
Nebraska	36	27	79	124	142	85
New Mexico	1	0	0	7	9	2
Ohio	83	70	92	221	298	169
South Dakota	13	5	32	54	62	11
Wisconsin	56	52	109	183	156	61
Wyoming	2	0	0	1	7	15
Total	559	516	1,403	1,939	2,301	887
Percentage		7.30	19.86	27.43	32.62	12.59

TABLE 35.—*Teaching experience of teachers in the small schools, academic and vocational, new and not new teachers combined.*

State.	Number of schools.	Teachers with no previous experience.	Number with less than 3 years.	Number with 3 but less than 6 years.	Number with 6 but less than 15 years.	Number with more than 15 years.
Arizona	1	1	1	7	2	0
Colorado	12	13	15	20	25	15
Illinois	19	11	42	43	34	13
Indiana	12	6	20	19	36	18
Iowa	13	10	43	29	25	11
Kansas	10	7	21	30	19	5
Michigan	23	26	63	47	38	17
Minnesota	13	9	24	48	40	12
Missouri	11	9	16	13	24	9
Montana	13	4	20	36	35	10
North Dakota	21	20	36	66	50	7
Nebraska	19	15	43	34	29	8
New Mexico	3	0	2	14	13	4
Ohio	33	21	44	40	65	35
South Dakota	11	6	21	22	19	3
Wisconsin	22	19	47	41	43	23
Wyoming	3	1	1	8	17	0
Total	239	179	459	527	515	190
Percentage		9.52	24.55	28.19	27.55	10.16

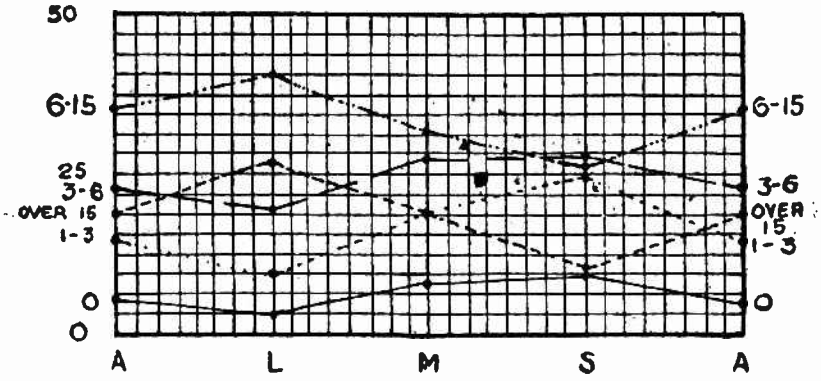


CHART XVI.—Teaching experience of all teachers (in percentages). Abbreviations as in Chart XIV; numbers represent years.

TABLE 36.—*Facts respecting the teaching experience of all teachers, academic and vocational, new and not new.*

Types of schools.	Per cent without previous experience.	Per cent with less than 3 years' experience.	Per cent with 3 but less than 6 years' experience.	Per cent with 6 but less than 15 years' experience.	Per cent with more than 15 years' experience.
Large	1.90	9.57	18.79	41.82	27.89
Medium	7.30	19.98	27.49	32.62	12.57
Small	9.52	24.55	28.19	27.55	10.16
Total	4.90	15.37	23.31	35.59	19.81

TRAINING OF VOCATIONAL TEACHERS.

Table 37 gives the training of vocational teachers in all three types of schools, large, medium, and small, and the subjects which they teach. The items pertaining to college training are fairly

accurate. The other items listed in the table are not complete or thoroughly reliable. Replies to the questions asked in the report and bearing on these items were exceedingly vague, misleading, or positively and obviously incorrect. Moreover, scores of reports contained either no replies at all, or else a few replies injected here and there. It was perfectly evident, too, that by many superintendents and principals manual training, domestic science, and art and agriculture, though taught by the association's so-styled vocational teachers, were not regarded in the schools themselves as vocational subjects. Since, therefore, these three groups of subjects are the ones most commonly taught in the public schools, and since they are not listed here at all, the figures given are not as helpful as might be wished. Generally speaking, it seems fair to assume, the difference between 100 per cent and the aggregate of the percentages given in the table dealing with subjects taught would indicate, in a rough manner, the percentages of vocational teachers who are teaching manual training, domestic science, art, and agriculture. Other tables bear more helpfully on the question of vocational work. (See later tables.)

Table 37, however, shows the interesting fact that, of the 6,007 vocational teachers employed in North Central schools, 2,454, or 40.85 per cent, hold college or university degrees. This is a highly significant item. While compared with the percentage of academic teachers with collegiate and professional training the percentage found here is not large, it nevertheless seems to indicate that the trend is toward higher qualifications for all types of teachers and for all types of schools.

TABLE 37.—*Training of vocational teachers in all the accredited public schools, large, medium, small, and the subjects they teach.*

State.	Number of vocational teachers.	Number with college degree.	Number teaching—					Number also teaching academic subjects.
			Combined subjects.	Independent subjects.	Art.	Music.	Physical training.	
Arizona	38	21	0	2	0	0	0	1
Colorado	184	80	17	32	1	1	1	4
Illinois	1,062	461	113	130	23	26	10	49
Indiana	601	204	25	101	11	16	5	27
Iowa	386	182	31	97	3	9	7	19
Kansas	344	173	25	85	9	16	4	22
Michigan	644	235	34	33	16	6	3	28
Minnesota	478	191	22	84	4	2	1	41
Missouri	354	151	16	46	2	3	4	23
Montana	123	62	16	20	2	4	3	5
North Dakota	102	46	5	20	0	3	0	16
Nebraska	200	112	9	47	1	8	3	19
New Mexico	17	14	2	7	0	1	0	1
Ohio	911	327	55	127	13	37	7	28
South Dakota	85	51	9	27	1	10	3	11
Wisconsin	459	139	31	52	0	6	1	12
Wyoming	19	5	1	3	0	0	1	0
Total	6,007	2,454	411	913	85	149	53	307
Percentage		40.85	6.84	15.19	1.41	2.46	0.88	5.11

PERIODS IN SCHOOL DAY.

Table 38 shows the variations in practice respecting the number of periods in the school day. Thirty schools only have a five-period day, while 39 schools have nine or more periods. Precisely 50 per cent of the schools have a seven-period day, and the average length of the period for the entire list of schools is 43.2 minutes.

A comparison is herewith made with data of like character recorded in the Judd-Counts report (p. 80).

Schools.	Present study.	Judd-Counts study.
Number of schools reporting	1,032	479
Number having 5 periods	30	8
Number having 6 periods	85	72
Number having 7 periods	516	284
Number having 8 periods	330	101
Number having 9 or more	39	14

The above figures seem to indicate that there is a slight tendency to increase the number of periods in the school day, though the tendency is as yet not decidedly marked.

The association never has set a fixed standard respecting the question.

TABLE 38.—*Number of periods in the school day, among all schools.*

State.	Number of schools.	Number of periods.					Average length, in minutes.
		5	6	7	8	9 or more.	
Arizona	6	1	3	2			43.3
Colorado	36	1	5	27	3	0	42.8
Illinois	135	4	8	59	56	9	45.0
Indiana	79	2	6	20	50	1	45.3
Iowa	76	1	7	52	14	2	44.0
Kansas	67	7	9	31	16	4	47.0
Michigan	112	6	10	70	23	3	46.2
Minnesota	67	0	2	27	34	4	43.2
Missouri	52	2	6	23	20	1	43.4
Montana	25	1	4	9	11	0	45.9
North Dakota	30	0	0	17	13	0	43.5
Nebraska	57	0	2	22	33	0	41.5
New Mexico	4	0	0	3	1	0	41.0
Ohio	165	3	16	91	42	13	43.7
South Dakota	24	0	1	11	12	0	43.5
Wisconsin	92	2	6	49	34	1	42.7
Wyoming	5	0	0	3	1	1	43.0
Total	1,032	30	85	516	330	39	43.2

LENGTH OF CLASS PERIODS.

Table 39 shows the length of the class periods. The only association ruling on the matter of periods is that they shall be at least 40 minutes in length, excluding all time used for the passing of classes. The table shows that approximately 90 per cent of the schools depart but little from the fixed minimum. Forty-five schools have, however, adopted the 55 or 60 minute class period, and 11 schools have

exceeded this length. Whether it is desirable for the association to adopt a longer class period as a standard can only be determined by scientific study of existing practices and results.

TABLE 39.—*Length of recitation or class period, all public schools considered.*

State.	Number of schools.	40 minutes.	45 minutes.	50 minutes.	55 or 60 minutes.	Over 60 minutes.
Arizona	6	2	4	0	0	0
Colorado	36	19	14	0	3	0
Illinois	135	69	68	3	3	2
Indiana	99	54	15	1	10	0
Iowa	76	16	57	1	2	0
Kansas	67	28	23	5	9	2
Michigan	112	21	78	2	4	5
Minnesota	67	41	22	1	4	0
Missouri	52	22	22	4	4	0
Montana	25	11	10	1	3	0
North Dakota	30	17	13	0	1	0
Nebraska	57	46	10	0	0	0
New Mexico	4	3	1	0	0	0
Ohio	165	62	95	8	0	0
South Dakota	24	10	13	0	1	0
Wisconsin	92	57	32	0	1	2
Wyoming	5	2	3	0	0	0
Total	1,082	470	480	26	45	11
Percentage	.....	45.54	46.51	2.51	4.36	1.06

NUMBER OF PERIODS TAUGHT.

The association has steadfastly sought to protect teachers and pupils from the evil effects of burdensome exactions placed on teachers. To that end it has made two positive demands: First, that no teacher of academic subjects shall teach more than six periods per day, and, secondly, that no teacher shall be required or permitted to conduct classroom exercises (including laboratory, shop, session-room, and study-hall work as well as regular class work) amounting to more than 35 periods per week. Table 40 shows the practice bearing upon these two standards in so far as the academic teachers are concerned.

As stated in the footnote to Table 40, it is obvious that persons filling out reports and answering the queries on which Table 40 is based included in their figures superintendents, principals, and other administrative officers who teach fewer than 5 periods per day. Elsewhere, however, the data show that there are but 12,420 academic teachers in the accredited schools. Hence the total of column 2 of Table 40 is too large by 524, though it is impossible to discover precisely how erroneous are the figures given for the several States in that column. The remaining figures in the table are correct.

Assuming, therefore, 2,607 as the correct total for column 2 of the table (Table 40), the table reveals the following facts, namely, that 305 teachers, or 2.45 per cent, are violating the association standard in teaching more than 6 periods daily, and, secondly, that 1,149 teachers, or 9.25 per cent, are likewise violating the

standard in assuming burdens that aggregate more than 35 periods per week, counting classroom exercises and quasi-classroom exercises together.

Although the second part of the standard mentioned had been in force only one year when the present reports were collected, the first part has been included in the conditions for accrediting schools for a number of years. And yet the violations indicated in this study are seemingly increasing slightly from year to year. In the Judd-Counts report, for comparison (p. 75), the percentage of *all* teachers teaching 7 periods per day is given as 2.8. In the present study it is 2.45 per cent for the academic teachers only. Just as in 1913–14, the State that is the worst offender in this respect is Illinois, with Ohio, Minnesota, and Missouri following in order. In guiltiness respecting the abuse of the 35-period-per-week standard for all teachers, all of the States are nearly equal, though Illinois, Michigan, and Indiana have the largest number of violations. The detailed tables show, too, that within these States (speaking particularly) and in most of the other States (speaking generally) the large cities are the chief violators of the standard here in question.

The query is pertinent: Are the standards fair and enforceable, or should they be modified or entirely repealed? Surely if the North Central list of schools is to be a guaranteed honor list, the percentages of willful violations should be checked.

TABLE 40.—*Number of periods teachers of academic subjects teach per day and per week.*[1]

State.	Number of academic teachers.	Teaching less than 5 periods.	Teaching 5 periods.	Teaching 6 periods.	Teaching 7 periods.	Employed more than thirty-five 45-minute periods, all told.
Arizona	64	33	18	10	0	2
Colorado	435	59	128	11	1	7
Illinois	1,980	524	943	655	97	303
Indiana	1,039	197	313	331	14	177
Iowa	894	269	402	213	7	18
Kansas	681	212	380	173	0	97
Michigan	1,420	255	806	305	4	258
Minnesota	830	334	408	203	60	44
Missouri	751	115	426	239	33	59
Montana	245	100	162	27	1	13
North Dakota	200	100	108	32	0	8
Nebraska	408	108	240	161	2	10
New Mexico	38	9	18	14	0	0
Ohio	2,144	353	819	882	77	88
South Dakota	189	50	88	17	0	28
Wisconsin	974	325	470	266	10	32
Wyoming	38	10	17	4	0	5
Total	12,420	3,131 [2]2,607	5,842	3,666	335	1,149
Percentage		25.20 [2]21.01	47.03	29.51	2.45	9.25

[1] It is perfectly evident that there are errors in this table. They occur in column 2, and seem to be traceable to the probable fact that superintendents and principals to the number of 524 classed themselves here not as administrative officers but persons teaching fewer than 5 periods per day.

[2] The obviously correct figures and percentages.

SALARIES.

Tables 41–43 show the ranges of salaries paid the academic teachers in the several types of schools. Tables 44–46 show the same items respecting vocational teachers. Table 47 gives the summaries of the six tables.

From these tables it is observed (1) that there is not, item for item, a decided difference in the salaries paid academic and vocational teachers in the several types of schools; (2) that the median salary for the entire association is between $900 and $1,199; (3) that, as would be expected, the small schools employ a very much larger percentage of teachers at small salaries than do the other types of schools; (4) that there is a median difference of approximately $300 salary in the three types of schools—large, medium, and small; and (5) that the typical salaries are, approximately, $787 for small schools, $1,050 for medium schools, and $1,500 or over for large schools.

The Judd-Counts report for 1913–14 gives the number of teachers (academic and vocational) which were receiving salaries of less than $700 as 3,244. This is 33.40 per cent of the total number of teachers whose records were given that year. The figures of the present study show 1,001 persons receiving salaries less than $675 annually, which is 5.15 per cent of the entire number. The comparisons of these two sets of replies are, of course, not quite fair, since there is a difference in the minimum salary used as the base of $25. However, it seems reasonable to conclude that within the three years 1914 to 1917 the minimum salary in North Central schools had notably advanced. It is still, however, too low. When more than 25 per cent of the teachers are receiving less than $900 annually, it is evident that the teacher's calling will not be financially attractive to many individuals, particularly to those who have dependents who must share their earnings.

War conditions and the enhanced cost of living have during the very recent months notably affected salaries of teachers. In consequence, the above analyses are now chiefly valuable as historical facts.

TABLE 41.—*Salaries of academic teachers in large schools.*

State.	Number of academic teachers replying.	Number with a salary of—				
		Less than $675.	$675–$899.	$900–$1,199.	$1,200–$1,799.	Above $1,800.
Arizona	23	0	0	8	14	1
Colorado	220	3	12	46	138	20
Illinois	1,269	4	126	262	468	409
Indiana	502	13	78	256	149	6
Iowa	347	5	72	177	89	4
Kansas	241	1	76	113	50	1
Michigan	678	7	91	238	294	48
Minnesota	352	11	31	68	211	31
Missouri	395	6	43	96	226	24
Montana	60	0	0	0	56	4
North Dakota	35	0	0	25	10	0
Nebraska	112	2	6	48	52	4
New Mexico	0	0	0	0	0	0
Ohio	1,085	6	110	270	534	165
South Dakota	21	0	0	9	12	0
Wisconsin	465	8	109	171	153	26
Wyoming	0	0	0	0	0	0
Total	5,805	64	754	1,787	2,456	743
Percentage		1.10	12.98	30.75	42.30	12.79

TABLE 42.—*Salaries of academic teachers in medium schools.*

State.	Number of academic teachers replying.	Number with a salary of—				
		Less than $675.	$675–$899.	$900–$1,199.	$1,200–$1,799.	Above $1,800.
Arizona	30	2	0	6	22	0
Colorado	118	0	35	67	16	0
Illinois	2,363	53	260	1,955	84	13
Indiana	417	4	247	127	20	19
Iowa	397	65	250	70	9	3
Kansas	329	8	228	83	8	2
Michigan	267	53	26	156	30	2
Minnesota	335	15	198	87	32	3
Missouri	177	40	100	34	3	0
Montana	60	2	0	25	29	4
North Dakota	43	0	24	16	3	0
Nebraska	233	9	186	30	8	0
New Mexico	11	0	1	9	1	0
Ohio	645	44	353	184	61	3
South Dakota	92	0	38	37	16	1
Wisconsin	368	35	235	84	11	3
Wyoming	11	3	0	1	3	4
Total	5,896	333	2,181	2,971	356	55
Percentage		5.64	36.99	50.39	6.03	0.93

TABLE 43.—*Salaries of academic teachers in small schools.*

State.	Number of academic teachers replying.	Number with a salary of				
		Less than $675.	$675–$899.	$900–$1,199.	$1,200–$1,799.	Above $1,800.
Arizona	7	0	0	5	2	0
Colorado	64	2	26	28	7	1
Illinois	75	5	39	21	7	3
Indiana	45	10	27	1	5	2
Iowa	68	22	40	5	1	0
Kansas	45	0	38	4	3	0
Michigan	114	38	42	29	3	2
Minnesota	62	6	30	14	10	2
Missouri	36	5	21	6	1	0
Montana	58	0	6	35	16	1
North Dakota	66	1	49	13	2	1
Nebraska	70	18	46	5	1	0
New Mexico	22	0	11	10	1	0
Ohio	110	29	57	20	12	1
South Dakota	42	8	25	8	1	0
Wisconsin	101	12	67	20	2	0
Wyoming	21	1	3	13	3	1
Total	1,015	157	530	240	77	14
Percentage		15.46	52.21	23.34	7.58	1.37

TABLE 44.—*Salaries of vocational teachers in large schools.*

State.	Number of vocational teachers replying.	Number with a salary of—				
		Less than $675.	$675–$899.	$900–$1,199.	$1,200–$1,799.	Above $1,800.
Arizona	9	0	0	3	5	1
Colorado	88	1	7	21	52	7
Illinois	692	17	42	150	305	178
Indiana	275	15	47	100	107	6
Iowa	167	7	34	80	42	4
Kansas	110	9	33	40	28	0
Michigan	294	20	40	70	144	20
Minnesota	175	1	23	31	101	19
Missouri	210	3	29	51	135	31
Montana	51	0	0	10	39	2
North Dakota	17	0	1	5	11	0
Nebraska	33	4	4	16	9	0
New Mexico	0	0	0	0	0	0
Ohio	442	9	47	126	206	54
South Dakota	5	0	0	1	3	1
Wisconsin	196	15	51	50	72	8
Wyoming	0	0	0	0	0	0
Total	2,803	101	358	754	1,259	331
Percentage		3.60	12.77	26.90	44.91	11.80

TABLE 45.—*Salaries of vocational teachers in medium schools.*

State.	Number of vocational teachers replying.	Number with a salary of—				
		Less than $675.	$675–$899.	$900–$1,199.	$1,200–$1,799.	Above $1,800.
Arizona	22	0	0	5	17	0
Colorado	59	1	18	28	12	0
Illinois	1,476	44	245	1,145	51	1
Indiana	211	13	115	60	21	2
Iowa	160	21	85	45	8	1
Kansas	176	22	93	45	10	0
Michigan	268	42	119	82	22	3
Minnesota	231	6	98	64	59	4
Missouri	72	16	40	13	2	1
Montana	39	0	1	17	20	1
North Dakota	42	0	16	15	11	0
Nebraska	109	7	72	26	4	0
New Mexico	6	0	0	4	2	0
Ohio	206	43	89	61	13	0
South Dakota	62	1	23	20	18	0
Wisconsin	198	35	84	60	19	0
Wyoming	19	0	0	16	3	0
Total	3,356	251	1,104	1,686	292	13
Percentage		7.16	32.89	50.53	8.70	0.38

TABLE 46.—*Salaries of vocational teachers in small schools.*

State.	Number of vocational teachers replying.	Number with a salary of—				
		Less than $675.	$675–$899.	$900–$1,199.	$1,200–$1,799.	Above $1,800.
Arizona	3	0	0	2	1	0
Colorado	22	0	11	7	4	0
Illinois	49	13	17	12	7	0
Indiana	41	15	16	3	6	1
Iowa	26	6	9	10	1	0
Kansas	25	1	17	7	0	0
Michigan	41	7	23	11	0	0
Minnesota	59	2	17	25	15	0
Missouri	14	1	10	3	0	0
Montana	37	1	4	26	6	0
North Dakota	60	0	40	15	4	1
Nebraska	30	13	11	3	0	0
New Mexico	10	0	2	6	2	0
Ohio	55	22	20	8	4	1
South Dakota	11	3	6	2	1	0
Wisconsin	55	11	29	10	3	0
Wyoming	7	0	0	4	3	0
Total	515	95	234	154	59	3
Percentage		18.51	42.93	28.25	10.82	0.55

TABLE 47.—*Summaries respecting salaries of both academic and vocational teachers.*

Types of schools.	Per cent with salaries less than $675.	Per cent with salaries of—			
		$675–$899	$900–$1,199	$1,200–$1,799.	Over $1,800.
Academic:					
Large	1.10	12.98	30.76	42.30	12.79
Medium	5.64	36.99	50.39	6.03	.93
Small	15.46	52.21	23.34	7.58	1.37
Total	4.35	27.24	39.28	22.71	6.38
Vocational:					
Large	3.60	12.77	26.90	44.91	11.80
Medium	7.46	32.89	50.53	8.70	.38
Small	16.51	42.93	28.25	10.82	.55
Total	6.66	25.29	38.84	24.01	5.17

[1] Doubtless includes some superintendents who teach part time, as well as the regular classroom teachers.

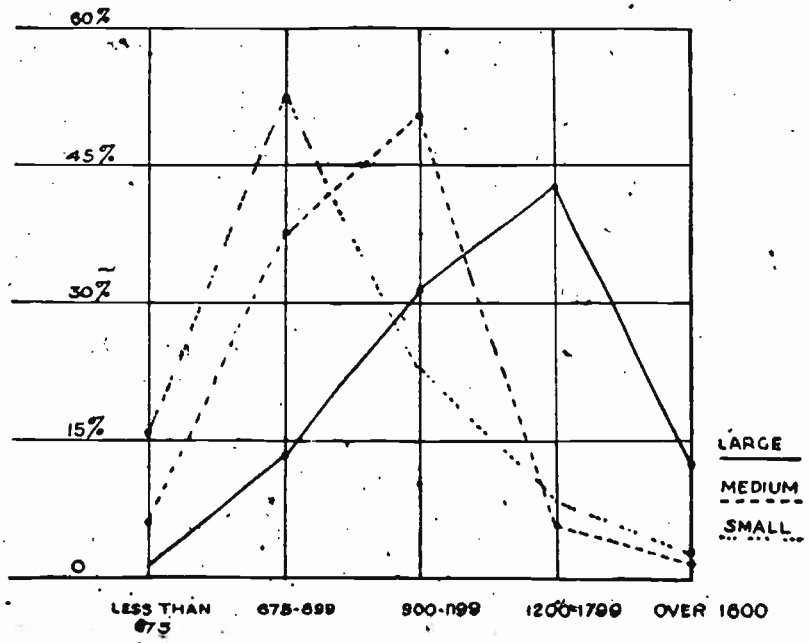


CHART XVII.—Shows graphically some of the facts revealed in Table 47, namely, the ranges of salaries paid academic teachers in the three types of schools.

RANGE OF ACADEMIC SALARIES.

Less than $675	$675–$899	$900–$1,199	$1,200–$1,799	More than $1,800

RANGE OF VOCATIONAL SALARIES.

Less than $675	$675–$899	$900–$1,199	$1,200–$1,799	More than $1,800

CHART XVIII.—Shows graphically the distribution of salaries among academic and vocational teachers combined, all schools (large, medium, and small) being considered.

DIVISION C—BUILDINGS AND EQUIPMENT.

While the association recognizes that the spirit of the school and the instructional work carried forward are paramount factors in judging of the worthiness and rank of a school, nevertheless truly effective progress, it is felt, can be secured only under reasonably favorable material conditions. Among the desirable characteristics of this kind are a commodious, safe, and hygienic building of a modern style, and illustrative, available, usable equipment of varied sorts. Whether a given building meets the first of these ideals must, in the nature of the case, be left largely to the expert judgment of the high-school visitor. The recency of the construction of the building is, however, suggestive in this matter. In like manner the number of volumes in the library and the annual expenditure for new reference and library books are items which throw considerable light upon the question of adequate equipment in that department of school work; while the monetary value of the equipment for maps and charts, for the several science and arts courses, and for gymnasial and recreational work is a fair criterion at least of the adequacy of the material furnishings in these fields.

Table 48 shows the number of schools which, in the judgment of the local State inspectors, do not measure up reasonably well to the standards set by the association in respect to school buildings. The total of 83 such schools (which is only 8.04 per cent of the entire number of 1,032 public schools accredited) is perhaps not a decidedly astonishing number. It should, however, be reduced if the association's standards are to be fairly maintained.

TABLE 48.—*Number of schools that do not satisfy Standard 5 reasonably well respecting spaciousness, sanitary and hygienic conditions, and safety.* a

	Number of schools.		Number of schools.
Arizona	0	Nebraska	3
Colorado	5	New Mexico	0
Illinois	13	North Dakota	0
Indiana	2	Ohio	15
Iowa	8	South Dakota	2
Kansas	4	Wisconsin	12
Michigan	9	Wyoming	0
Minnesota	6		
Missouri	2	Total	83
Montana	2	Per cent	8.04

RECENCY OF CONSTRUCTION.

Table 49 shows the recency of the construction of the high-school buildings, and hence, it may be assumed, the degree of modernity which these buildings exhibit in architectural forms, sanitary and hygienic conditions, spaciousness, and provision for the newer aspects of school work, such as gymnasiums, auditoriums, session rooms, rest rooms, shop and laboratory arrangements, and similar features. Of the 1,032 school buildings of the schools considered in this study, the table shows that 345, or 33.43 per cent, have been erected since 1910; 223, or 21.60 per cent, were erected in the half decade before 1910; 225, or 21.80 per cent, were erected in the decade between 1895 and 1905; while only 121, or 11.71 per cent, were built earlier than 1895. One hundred and eighteen schools failed to report on this particular item of inquiry. Omitting them from consideration, it is to be noted that more than 55 per cent of all the high schools in the association are housed in buildings that have been built within the past dozen years. This fact by itself indicates, it seems proper to assert, the recent growth of popular interest in secondary education, and perhaps also the influence which the North Central Association has had in helping to raise standards and to secure better facilities in local communities.

TABLE 49.—*When high-school buildings were erected.*

State.	Number of schools.	Number of schools erected—				Number not reported.
		Since 1910.	From 1905 to 1910.	From 1895 to 1905.	Before 1895.	
Arizona	6	5	1	0	0	0
Colorado	36	10	5	6	4	11
Illinois	135	42	32	47	14	0
Indiana	79	28	20	17	12	2
Iowa	76	35	8	24	6	3
Kansas	67	28	19	11	4	2
Michigan	112	9	9	3	13	78
Minnesota	67	28	20	8	10	1
Missouri	52	18	18	11	5	0
Montana	25	13	3	6	2	1
Nebraska	57	24	16	8	6	3
New Mexico	4	2	1	1		0
North Dakota	30	10	9	11		0
Ohio	165	59	32	36	29	9
South Dakota	24	8	7	4	4	1
Wisconsin	92	23	22	28	12	7
Wyoming	5	3	1	1		0
Total	1,032	345	223	225	121	118
Percentage		33.43	21.60	21.80	11.71	11.43

LIBRARY.

Table 50 gives the number of volumes in the high-school libraries, the average number of volumes per school, and the average annual expenditure of money per school for library purposes. Within the libraries of the 1,032 public high schools accredited by the association in 1917, there was a total of 1,913,996 volumes, which gives an average of 1,854 volumes per school. Moreover, each school, on the average, was expending annually for new books and periodicals the sum of $221.43. In the average number of volumes per school, Michigan, Minnesota, Missouri, and Kansas seem to take the lead; while in the amount of expenditures annually for additions to the libraries, Michigan and Missouri seem to make the best showing. The poorest showing in these respects is made by Nebraska, Colorado, and North Dakota.

TABLE 50.—*Number of volumes in high-school libraries, average number per school, and average annual expenditure per school.*

State.	Total number of volumes.	Average number per school.	Average annual expenditure per school.
Arizona	8,031	1,338	$237
Colorado	69,680	1,935	93
Illinois	243,051	1,800	211
Indiana	116,623	1,478	108
Iowa	89,871	1,182	114
Kansas	151,867	2,206	177
Michigan	294,840	2,632	482
Minnesota	172,018	2,567	292
Missouri	128,353	2,472	320
Montana	35,788	1,432	159
Nebraska	39,148	634	58
New Mexico	3,700	925	138
North Dakota	39,495	1,317	99
Ohio	310,397	1,881	282
South Dakota	46,112	1,921	165
Wisconsin	163,780	1,780	147
Wyoming	4,042	808	240
Total	1,913,990	1,854	221.43

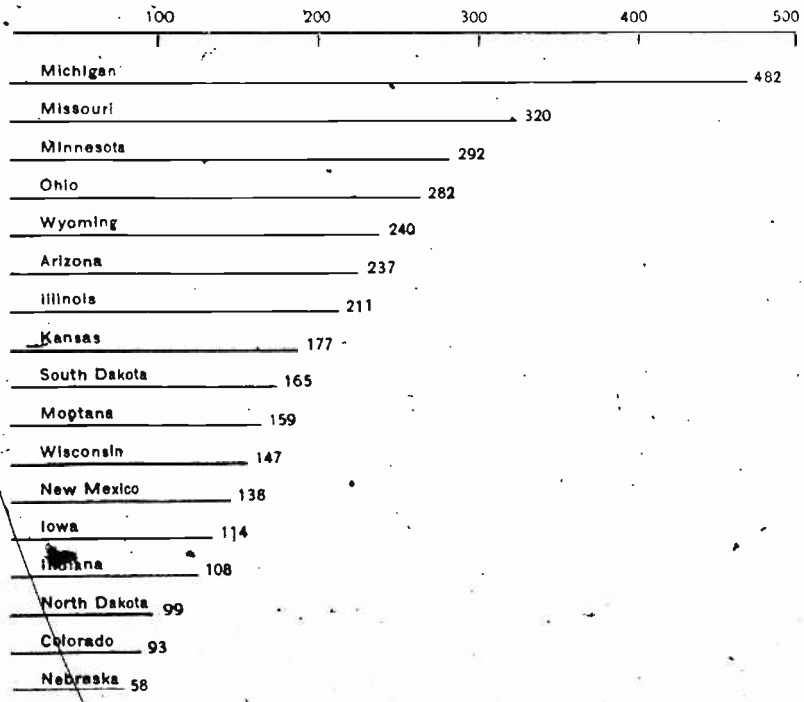


CHART XIX.—Shows graphically the averages given in Table 50, namely, the amount of money annually expended for the library.

EQUIPMENT FOR THE SCIENCES.

Tables 51–55 give the value of the equipment in the several fields of science. Physics, chemistry, biological work, and physical geography take rank in public estimation (as interpreted by the expenditure of money for carrying on the work) in the order given. The typical school in the North Central Association has had expended on it $1,099 for physical equipment, $808 for chemical equipment, $448 for biological equipment, and $117.91. for equipment for physical geography. No doubt the expenditure for the latter subject is smaller than would otherwise be the case if it were not for the fact that frequently the equipment provided for other sciences is used also in the study of physical geography.

When the figures are analyzed by States the following facts are noted: Missouri leads all the States in expenditures per school for equipment in physics. Illinois, Indiana, and Michigan follow closely. On the other hand, New Mexico and Nebraska provide very sparingly for physics, expending, respectively, but $325 and $382 per school. North Dakota and Kansas stand slightly above, with expenditures of $643 and $665.

In chemistry Ohio seems to have made the most adequate provision, since that State has expended on an average $1,323 per school for equipment in this branch of study. Arizona, Illinois, and Missouri follow closely. At the other end of the list Kansas with $280 per school, New Mexico, with $288 per school, Nebraska with $386 per school, and North Dakota with $392 per school seem either to give little attention to the subject as States, or else make in comparison rather inadequate provision for it wherever it is offered.

In the biological sciences Colorado and New Mexico, with equipment respectively averaging per school only $49 and $50, make what appears on paper to be a rather poor showing. No State, in fact, makes an especially noteworthy showing, but Illinois with $941 per school, Arizona with $770 per school, and Missouri with $766 per school rank fairly well.

In physical geography, New Mexico takes lowest rank, as it makes no provsion whatever (in equipment) for the subject. Kansas expends but $17 per school, Wyoming but $30, and Montana but $47. At the other end of the list Missouri leads again with an expenditure per school of $308, Illinois follows with $239, and Michigan stands third with an expenditure of $147 per school.

TABLE 51.—*Total value of equipment in physics.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$5,880	$980	Nebraska	$21,775	$382
Colorado	37,908	1,053	New Mexico	1,300	325
Illinois	190,732	1,412	North Dakota	19,276	643
Indiana	113,256	1,421	Ohio	191,325	1,160
Iowa	67,938	893	South Dakota	17,672	736
Kansas	44,555	665	Wisconsin	84,187	914
Michigan	156,630	1,398	Wyoming	4,500	900
Minnesota	68,935	1,029			
Missouri	78,633	1,512	Total	1,134,952	
Montana	26,250	1,050	Average	66,761	1,099

TABLE 52.—*Total value of equipment in chemistry.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$6,500	$1,083	Nebraska	$22,015	$396
Colorado	29,782	813	New Mexico	1,150	288
Illinois	145,551	1,078	North Dakota	11,770	392
Indiana	58,917	746	Ohio	218,311	1,323
Iowa	35,995	472	South Dakota	14,797	616
Kansas	18,790	280	Wisconsin	42,336	460
Michigan	102,035	911	Wyoming	4,500	900
Minnesota	50,753	757			
Missouri	52,419	1,008	Total	834,161	
Montana	18,540	742	Average	49,068	808

TABLE 53.—*Total value of equipment in biology.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$4,620	$770	Nebraska	$17,755	$312
Colorado	1,756	49	New Mexico	200	50
Illinois	127,033	941	North Dakota	8,188	273
Indiana	38,199	483	Ohio	53,410	324
Iowa	20,345	267	South Dakota	6,375	266
Kansas	17,091	256	Wisconsin	34,260	372
Michigan	49,778	444	Wyoming	850	170
Minnesota	35,254	528			
Missouri	39,615	786	Total	462,884	
Montana	7,965	818	Average	27,228	448

TABLE 54.—*Total value of equipment in physical geography.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$845	$140	Nebraska	$3,350	$59
Colorado	4,174	116	New Mexico	0	0
Illinois	32,322	239	North Dakota	2,930	98
Indiana	3,965	50	Ohio	16,270	99
Iowa	5,788	76	South Dakota	2,730	114
Kansas	1,170	17	Wisconsin	7,172	78
Michigan	16,545	147	Wyoming	150	30
Minnesota	7,070	106			
Missouri	16,030	306	Total	121,691	
Montana	1,180	47	Average	7,155.29	117.91

TABLE 55.—*Value of equipment in the several fields of science.*

Sciences.	Total value of equipment.	Average value per State.	Average value per school.
Physics	$1,134,952	$66,761	$1,009
Chemistry	834,161	49,068	808
Biological sciences	462,884	27,228	448
Physical geography	121,691	7,158.29	117.91
Total	2,553,088	150,217	2,474

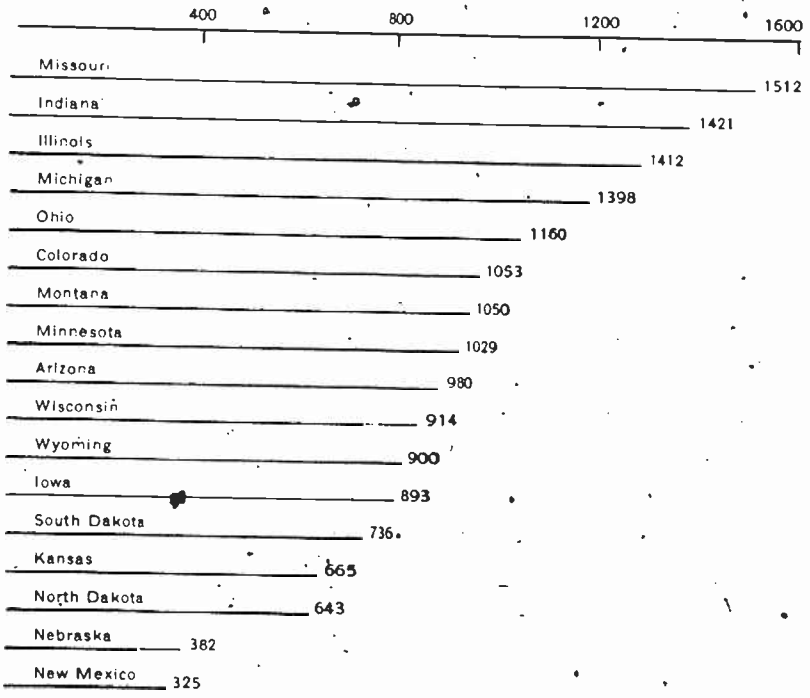


CHART XX.—Shows graphically the averages given in Table 51, namely, the average value (per school) of the equipment in physics.

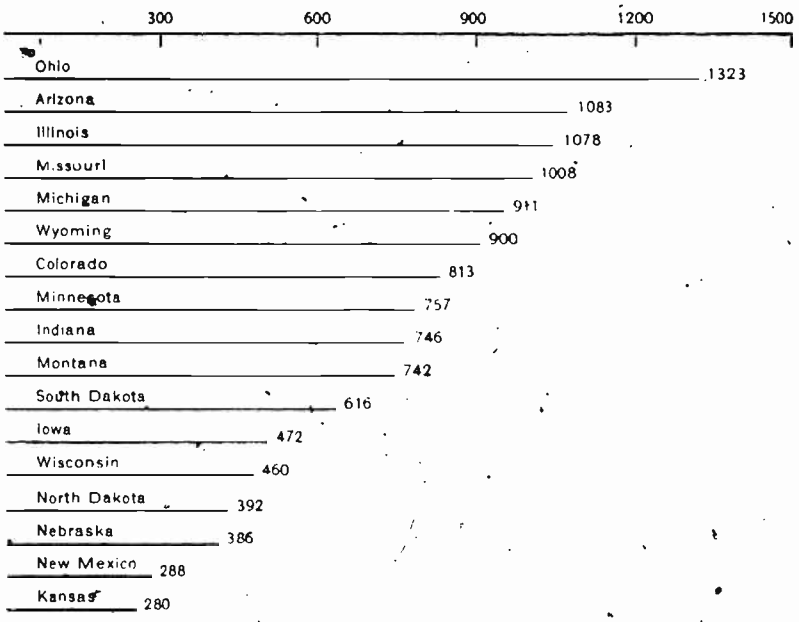


CHART XXI.—Shows graphically the averages given in Table 52, namely, the average value (per school) of the equipment in chemistry.

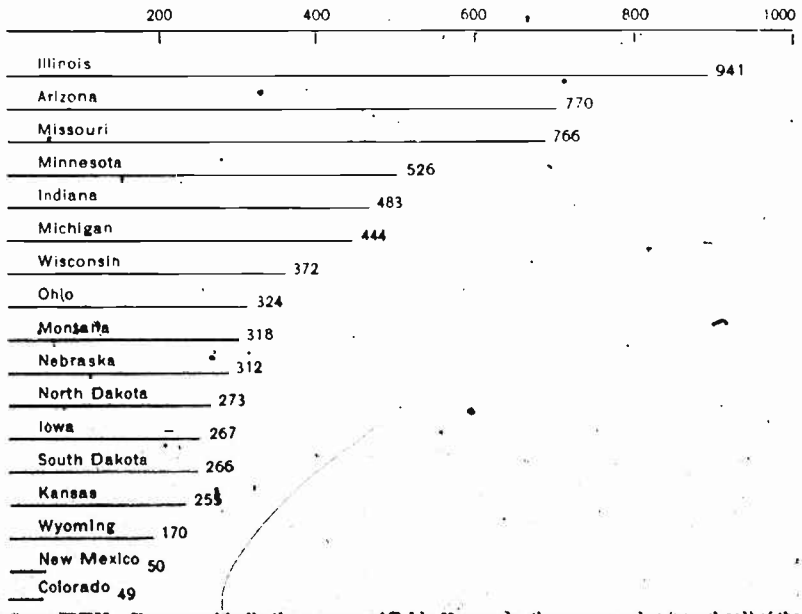


CHART XXII.—Shows graphically the averages of Table 53, namely, the average value (per school) of the equipment in biology.

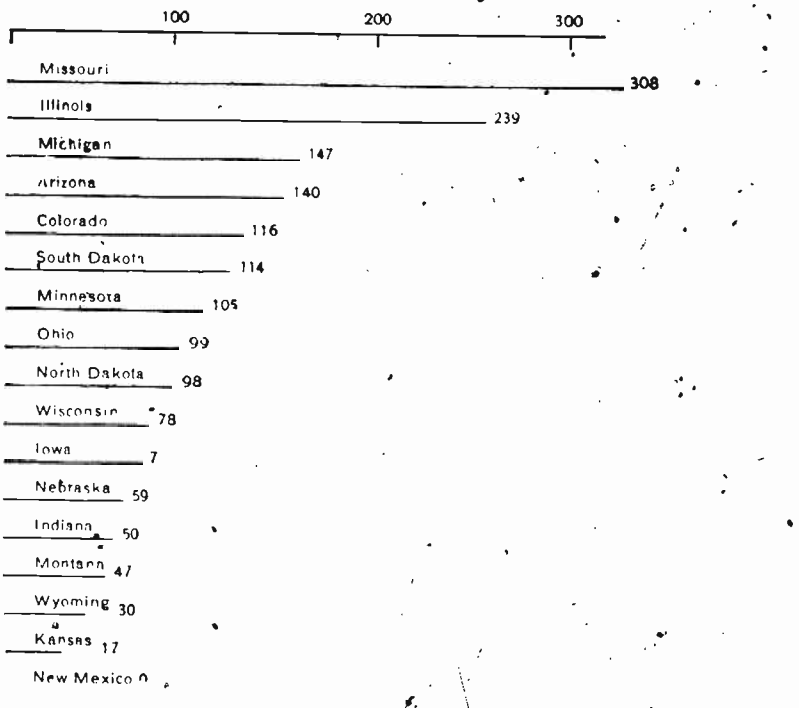


CHART XXII.—Shows the averages of Table 54, namely, the average value (per school) of the equipment in physical geography.

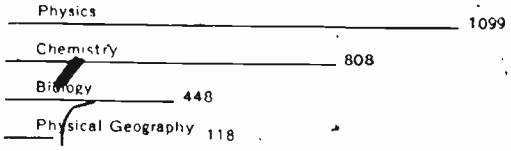


CHART XXIV.—Shows graphically the facts given in Table 55, namely, the average value (per school) of the equipment in the sciences.

AGRICULTURE.

Agriculture as a subject of study in the high school is of recent birth. The equipment provided for its work could, therefore, scarcely be expected to be as complete and extensive as that for the older branches of study. Nevertheless, to offer the subject without making adequate provision for concrete illustrative and working material would seem to be the height of absurdity. The leading criticism directed against the teaching of agriculture in the public schools has been its superficiality, abstractness, and bookishness. If any branch of study calls for generous expenditures of money for equipment, surely agriculture does. The tables show, however, that as yet the amount voted for such material has been exceedingly small

and inadequate. Throughout the association territory only $153 per school has been invested, and a total amount of $158,420 is all that has been devoted to the purposes of agriculture. Among the States, Minnesota, with an average of $427 per school, and North Dakota, with an average of $359 per school, take the lead. On the other hand, Wyoming, reporting no expenditures whatever, Colorado, with an expenditure of only $21 per school, and New Mexico, with $25 per school, either have, it would seem, not introduced the subject to any notable extent or else are far from sustaining its teaching in a satisfactory manner. Nor do any of the other States have reason to be satisfied with the provisions they are making for this new but valuable subject.

TABLE 56.—*Total value of equipment in agriculture and the average value per school.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$400	$66	Nebraska	$11,650	$204
Colorado	770	21	New Mexico	100	25
Illinois	26,921	199	North Dakota	10,765	359
Indiana	4,950	62	Ohio	28,975	176
Iowa	12,288	161	South Dakota	3,382	141
Kansas	14,100	210	Wisconsin	7,439	81
Michigan	8,020	71	Wyoming	0	0
Minnesota	28,615	427			
Missouri	8,680	167	Total	158,420	
Montana	1,365	55	Average	9,319	153

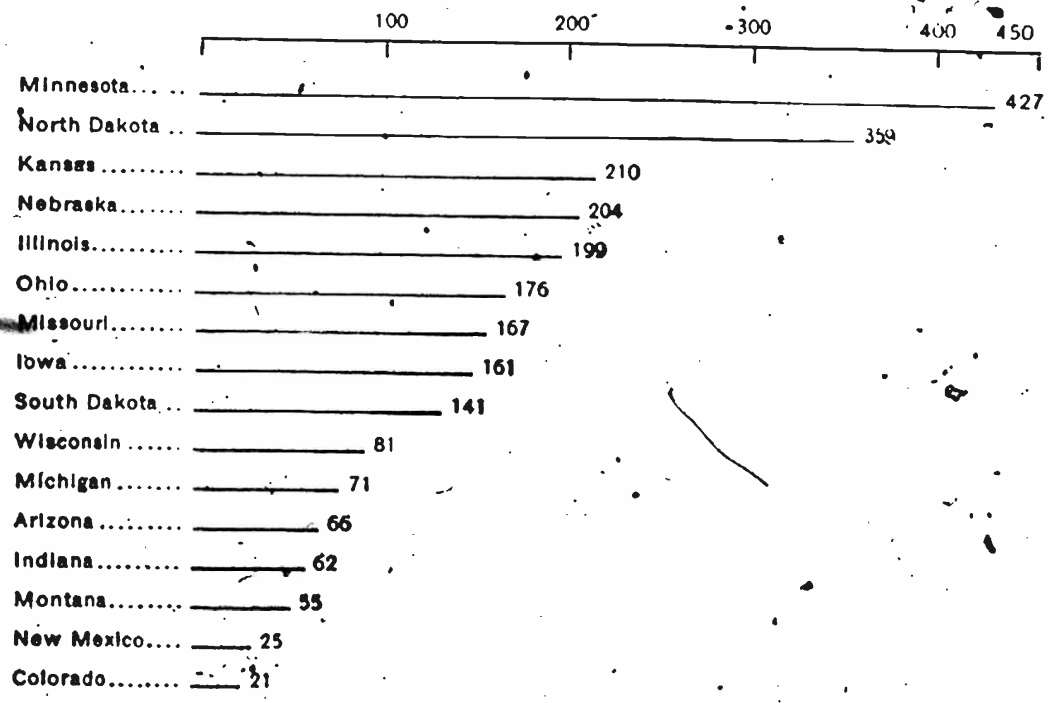


CHART XXV.—Shows graphically the facts given in Table 56 namely, the average value (per school) of the equipment for agriculture.

MANUAL TRAINING.

Table 57 shows the value of the equipment in manual training. The enormous sum (relatively speaking) of $2,920,553 has been devoted to this single branch of study—an amount considerably in excess of that provided for all the sciences combined. With the exception of the States of New Mexico and Nebraska (which expend, respectively, per school $425 and $535), the average per school expenditure for equipment of this sort is high. Minnesota leads with an amount equal to $5.305 per school; then follow Kansas with $3,899 per school and Illinois with $3.817 per school.

TABLE 57.—*Total value of equipment in manual training.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$21,710	$3,618	Nebraska	$30,475	$535
Colorado	68,478	1,902	New Mexico	1,700	425
Illinois	515,283	3,817	North Dakota	33,447	1,115
Indiana	189,600	2,400	Ohio	483,607	2,931
Iowa	100,830	1,326	South Dakota	29,625	1,234
Kansas	261,237	3,899	Wisconsin	196,187	2,133
Michigan	395,004	3,527	Wyoming	6,800	1,360
Minnesota	355,421	5,305			
Missouri	149,716	2,879	Total	2,920,553	
Montana	81,430	3,257	Average	171 797	2,829

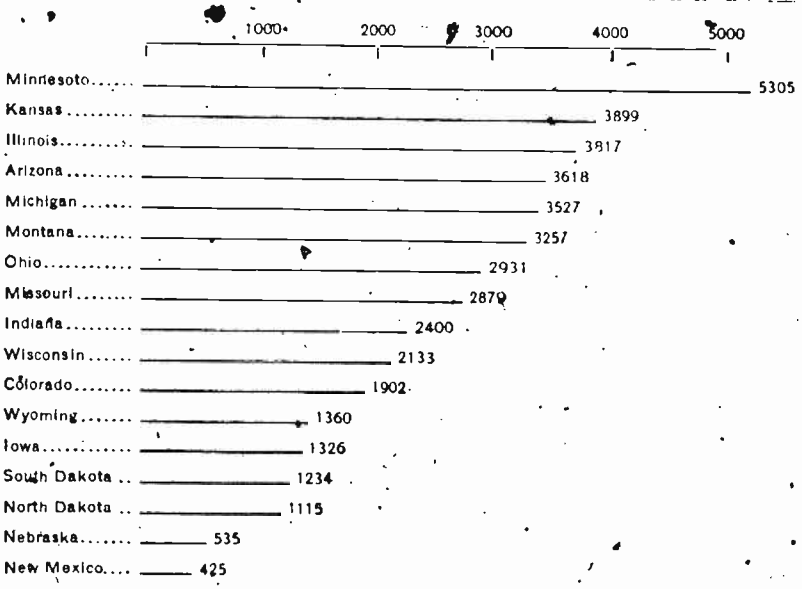


CHART XXVI.—Shows graphically the averages of Table 57, namely, the average value (per school) of the equipment in manual training.

COOKING AND SEWING.

Tables. 58 and 59 show the amounts which have been expended for equipment, for cooking, and sewing. Contrasted with the amounts spent for manual training, the sums are not excessively large. They are for cooking, $689,230; for sewing, $316,498; or for the two combined the amount is $1,005,728. The typical North Central school has expended $668 for equipment for cooking and $306 for equipment for sewing.

Compared by States, Montana leads in the generosity of its support for cooking, and Arizona in its support for sewing. The States which have expended least per school for both subjects are New Mexico and Nebraska.

TABLE 58.—*Total value of equipment in cooking.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$6,660	$1,110	Nebraska	$21,390	$375
Colorado	20,242	562	New Mexico	1,050	263
Illinois	136,482	1,011	North Dakota	10,304	543
Indiana	45,240	573	Ohio	93,512	567
Iowa	40,495	532	South Dakota	11,117	463
Kansas	34,015	508	Wisconsin	45,580	406
Michigan	59,048	527	Wyoming	5,200	1,040
Minnesota	57,715	861			
Missouri	55,622	1,068	Total	689,230	
Montana	39,600	1,584	Average	40,543	748

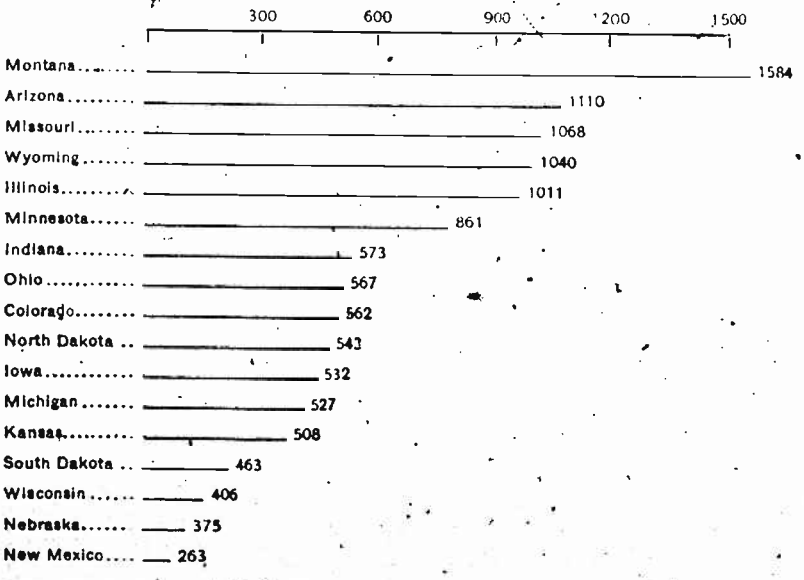


CHART XXVII.—Shows graphically the facts of Table 58, namely, the average value (per school) of the equipment in cooking.

TABLE 59.—*Total value of equipment in sewing.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$33,251	$554	Nebraska	$7,345	$129
Colorado	11,332	315	New Mexico	375	94
Illinois	37,613	278	North Dakota	4,946	165
Indiana	20,403	277	Ohio	46,128	280
Iowa	14,668	193	South Dakota	4,001	167
Kansas	16,797	250	Wisconsin	23,587	256
Michigan	39,173	356	Wyoming	1,550	310
Minnesota	25,830	386	Total	316,498	
Missouri	19,199	369	Average	18,617	306
Montana	10,300	414			

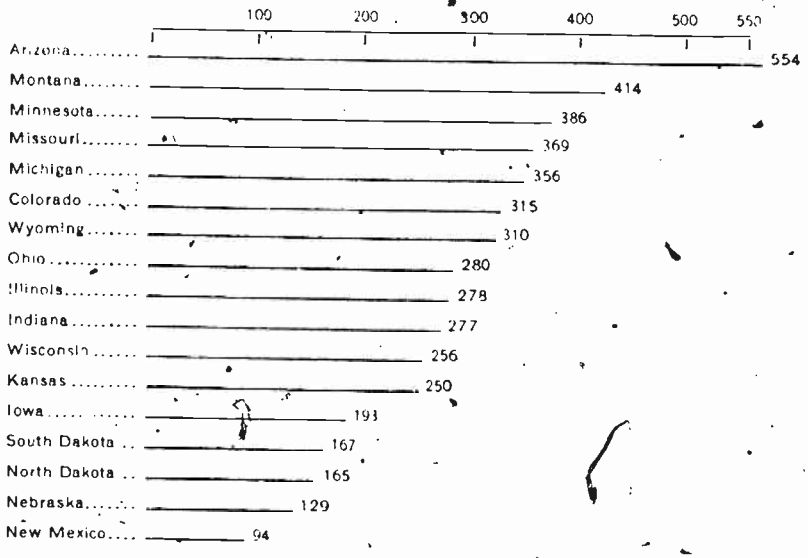


CHART XXVIII.—Shows graphically the facts of Table 59, namely, the average value (per school) of the equipment in sewing.

TABLE 60.—*Expenditures for the four practical arts subjects together—Agriculture, manual training, cooking, and sewing.*

Subjects.	Total value of equipment.	Average value per State.	Average value per school.
Agriculture	$158,420	$9,319	$153
Manual training	2,920,553	171,797	2,820
Cooking	689,230	40,543	668
Sewing	316,498	18,617	306
Total	4,084,701	240,276	3,958

COMMERCIAL SUBJECTS.

Table 61 shows the value of equipment for commercial subjects. The average is $792 per school, or $4,986 per State. Arizona, with its few schools, leads all the States in the amount of money expended per school, with Illinois and Montana taking rank considerably below her. South Dakota, Nebraska, and New Mexico provide least generously for equipment of this kind.

TABLE 61.—*Total value of equipment on commercial subjects.*

State.	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$11,000	$1,833	Nebraska	$20,875	$366
Colorado	21,939	610	New Mexico	1,800	450
Illinois	169,483	1,255	North Dakota	43,767	459
Indiana	49,192	622	Ohio	120,018	764
Iowa	44,005	579	South Dakota	8,190	341
Kansas	41,862	624	Wisconsin	82,163	893
Michigan	108,021	964	Wyoming	3,950	750
Minnesota	47,522	709			
Missouri	40,675	782	Total	817,601	
Montana	27,139	1,086	Average	4,986	792

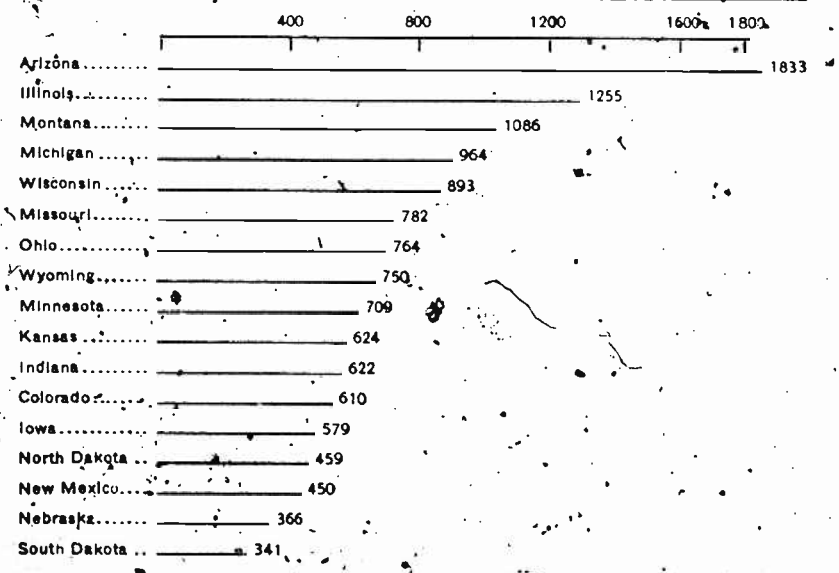


CHART XXIX.—Shows graphically the facts of Table 61, namely, the average value (per school) of equipment for commercial subjects.

MAPS AND CHARTS.

Table 62 gives the value of the equipment in maps and charts. The typical school has appropriated for this purpose the sum of $162, while the sum total for the entire 17 States is $167,684. Excepting Colorado, which has provided equipment of this kind amounting to

only $65 per school, there is little notable variation from the norm or average by the other States. Wyoming leads with an expenditure of $215 per school, Michigan expends $196 per school, and Minnesota $193 per school. No State, except Colorado, falls below $114 per school.

TABLE 62.—*Value of maps and charts.*

State.	Total value by States.	Average value per school.	State.	Total value by States.	Average value per school.
Arizona	$880	$143	Nebraska	$8,480	$148
Colorado	2,404	65	New Mexico	500	125
Illinois	24,472	181	North Dakota	3,647	122
Indiana	9,519	122	Ohio	30,660	186
Iowa	10,845	142	South Dakota	2,730	114
Kansas	10,182	152	Wisconsin	16,943	184
Michigan	21,997	196	Wyoming	1,075	215
Minnesota	12,982	193			
Missouri	7,148	137	Total	167,684	
Montana	3,260	130	Average	9,864	162

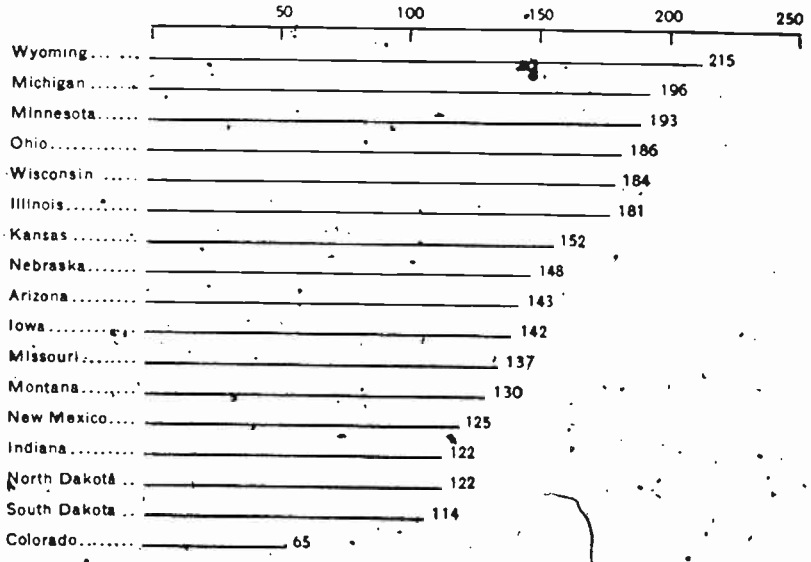


CHART XXX.—Shows graphically the facts of Table 62, namely, the average value (per school) of the equipment in charts and maps.

GYMNASIUMS AND PLAYGROUNDS.

Table 63 shows the value of equipment for gymnasiums and playgrounds. The grand total is $6,632,214, being an average per State of $390,130 and per school of $6,426. These figures indicate, to some extent at least, the educational and popular interest in health, recreation, and training for leisure hours. Relatively speaking, the taxpayers have been exceedingly lavish in the moneys voted for these purposes, though by no means too lavish. The State of Indiana

leads all others, with an appraised valuation of $11,994 per school devoted to the work of this kind. Montana follows with $11,677, and then Illinois and Michigan with $9,598 and $8,016 per school, respectively. South Dakota with an average expenditure of $1,107 per school has provided least extensively for equipment of this kind, and Nebraska ranks next with a valuation of $1,926 per school.

TABLE 63.—*Total value of equipment for gymnasiums and playgrounds.*

State	Total value.	Average value per school.	State.	Total value.	Average value per school.
Arizona	$17,000	$2,833	Nebraska	$100,800	$1,926
Colorado	109,330	3,037	New Mexico	21,000	5,250
Illinois	1,295,806	9,598	North Dakota	62,910	2,098
Indiana	947,558	11,994	Ohio	1,292,148	7,831
Iowa	458,975	6,039	South Dakota	26,552	1,107
Kansas	217,042	3,239	Wisconsin	352,423	3,831
Michigan	907,862	8,106	Wyoming	27,660	4,050
Minnesota	197,300	2,945			
Missouri	296,882	5,709	Total	6,632,214	
Montana	291,936	11,677	Average	390,130	6,426

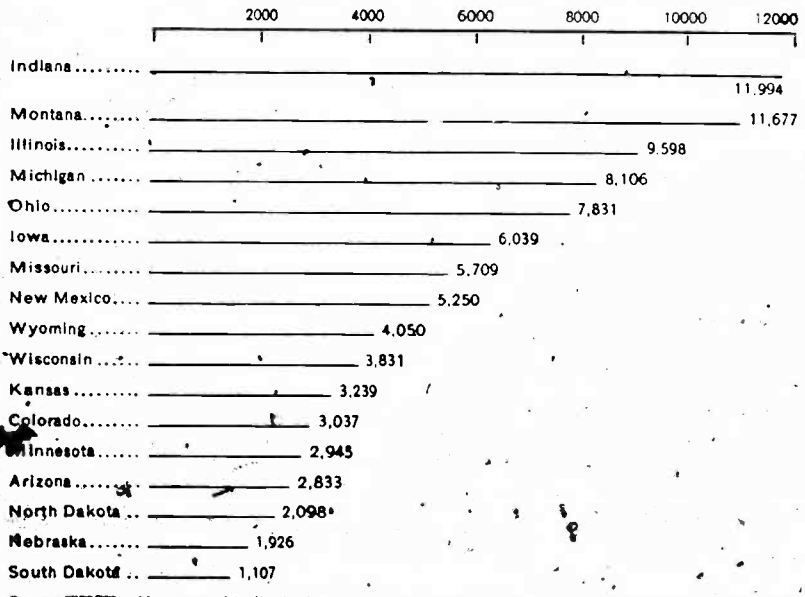


CHART XXXI.—Shows graphically the facts of Table 63, namely the average value (per school) of the total equipment for gymnasium and playground activities.

SCHOOL PLANT.

Table 64 shows the value of the entire equipment for the school plants, buildings, and grounds. The figures give us the total of $130,443,348, or an average of $7,673,138 per State, and $126,398 per school. Ohio leads with an investment of over 30-million dollars;

Michigan comes next with an investment of nearly 16 million dollars, and Iowa stands third with an investment of about 12½ million dollars. When, however, the average value per school is taken as the basis—a much fairer basis—the ranking is Ohio, Minnesota, Missouri. At the bottom of the list stands Nebraska, followed closely by New Mexico and North Dakota.

TABLE 64.—*Total value of equipment of the complete school plant, building and grounds.*

State.	Total valuation.	Average valuation per school.	Number of schools reporting.
Arizona	$802,300	$143,716	6
Colorado	2,914,055	80,946	36
Illinois	11,603,035	85,948	135
Indiana	10,546,564	133,500	79
Kansas	12,293,483	161,756	76
Michigan	6,103,804	91,101	67
Minnesota	15,958,256	142,484	112
Missouri	11,542,752	172,280	67
Montana	8,474,089	162,965	52
Nebraska	2,746,185	109,847	25
New Mexico	2,453,450	43,358	57
North Dakota	213,000	53,250	4
Ohio	1,910,400	63,680	30
South Dakota	30,533,377	185,050	165
Wisconsin	2,193,756	91,407	24
Wyoming	9,689,842	105,323	92
	405,000	81,000	5
Total	130,443,348	126,398	1,032
Average	7,673,138		

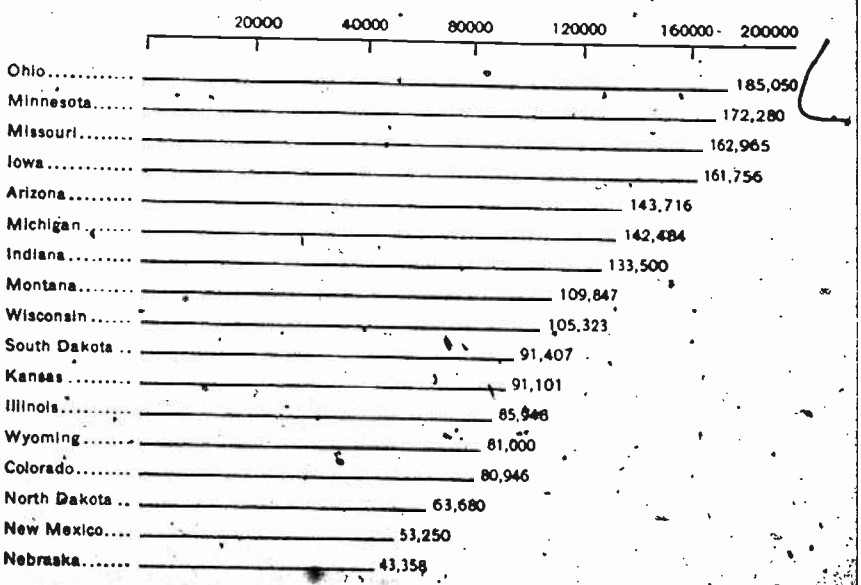
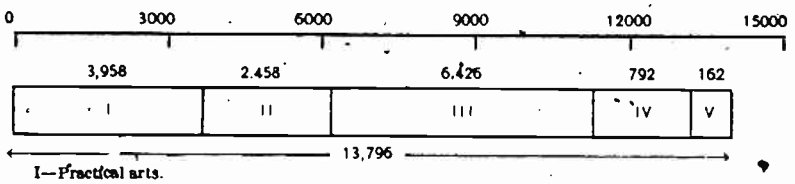


CHART XXXII.—Shows graphically the facts of Table 64, namely, the average value (per school) of the equipment of the complete school plant, building and grounds.

TABLE 65.—*Value of equipment of the several sorts given in the other tables.*

Equipment.	Total value.	Average per State.	Average per school.
Science	$2,537,290	$149,252	$2,458
Practical arts	4,084,701	240,276	3,958
Commercial subjects	817,601	4,986	792
Maps and charts	167,684	9,864	162
Gymnasiums and playgrounds	6,632,214	390,130	6,426
Entire plant	130,443,348	7,673,138	126,398



I—Practical arts.
II—Science.
III—Gymnasium and playgrounds.
IV—Commercial subjects.
V—Maps and charts.
Entire area—total average value of equipment.

CHART XXXIII.—Shows graphically the facts of Table 65, namely, the average value (per school) of the equipment of various sorts.

DIVISION D—THE PROGRAM OF STUDIES.

Division D of this study deals with the extent of the offerings in units and half units in the several departments of work. The tables doubtless bear out common impressions, but likewise give a fact basis for comparisons such as, it is believed, have never heretofore been made by the association.

Table 66 shows that in English the extent of the offerings are 3 units by 86 schools; 4 units by 879 schools; and more than 4 units by 67 schools. In percentages the figures are: 8.33 per cent of the schools offer three units only; 85.17 per cent offer four units; and 6.49 per cent offer more than four units. Kansas and Nebraska are the States in which the 3-unit arrangement is found most often.

TABLE 66.—*Offerings in English.*

State.	Number of schools offering—			State.	Number of schools offering—		
	Three units.	Four units.	Over 4 units.		Three units.	Four units.	Over 4 units.
Arizona	0	5	1	North Dakota	1	27	2
Colorado	0	34	2	Nebraska	26	28	1
Illinois	6	117	12	New Mexico	1	2	1
Indiana	2	70	7	Ohio	17	145	3
Iowa	2	68	6	South Dakota	0	23	1
Kansas	24	40	3	Wisconsin	2	77	13
Michigan	2	103	7	Wyoming	0	4	1
Minnesota	0	63	4				
Missouri	1	54	0	Total	86	879	67
Montana	0	22	3	Percentage	8.33	85.17	6.49

Table 67 shows the offerings in Latin. Twenty-four accredited schools, or 2.32 per cent, do not offer the subject; 88, or 8.52 per cent, offer it for two years; 87, or 8.43 per cent, offer it for three years; and the others, 833, or 80.71 per cent, offer it for four years. Of the schools not offering the subject, 6 are in Illinois, 1 in Michigan, 1 in North Dakota, 4 in Nebraska, 1 in South Dakota, and 11 in Wisconsin. Of the States in which 2 units only are offered, Michigan and Nebraska have the greatest number of schools.

TABLE 67.—*Offerings in Latin.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	Two units.	Three units.	Four units.		None.	Two units.	Three units.	Four units.
Arizona	0	0	2	4	North Dakota	1	9	4	16
Colorado	0	4	3	29	Nebraska	4	13	9	31
Illinois	6	6	6	117	New Mexico	0	0	1	3
Indiana	0	2	10	67	Ohio	0	2	0	163
Iowa	0	0	1	75	South Dakota	1	5	1	17
Kansas	0	4	24	39	Wisconsin	11	6	5	70
Michigan	1	19	7	85	Wyoming	0	2	3	0
Minnesota	0	9	7	51					
Missouri	0	5	2	45	Total	24	88	87	833
Montana	0	2	2	21	Percentage	2.32	8.52	8.43	80.71

Table 68 shows that Greek is being offered in only 37 of the North Central schools, and for a period of two units only. But two small schools offer the subject, and only eight of the medium schools do so. No school which offers the subject offers less than two units.

TABLE 68.—*Offerings in Greek.*

State.	Number of schools offering—		State.	Number of schools offering—	
	None.	Two units.		None.	Two units.
Arizona	6	0	North Dakota	30	0
Colorado	35	1	Nebraska	56	1
Illinois	130	5	New Mexico	4	0
Indiana	75	4	Ohio	157	8
Iowa	75	1	South Dakota	24	0
Kansas	67	0	Wisconsin	90	2
Michigan	107	5	Wyoming	5	0
Minnesota	66	1			
Missouri	43	9	Total	993	37
Montana	25	0	Percentage	96.41	3.59

Table 69 shows the offerings in German. Of the 1,032 public schools accredited in 1917, all but 58, or 5.62 per cent, offered some work in German. Of those which did offer the subject, 472, or 45.73 per cent, offered it for two years; 254, or 24.61 per cent, offered for three years; and 248, or 24.03 per cent, for four years. Every accredited school in Iowa, Minnesota, North Dakota, South Dakota, and Wyoming included German in its offerings. The only States in

which German was not prominent in the schools are Arizona and Colorado. The changes in interest in this subject because of the entrance of the United States into the war will, in the future, make an interesting comparative study.[1]

TABLE 69.—*Offerings in German.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	Two units.	Three units.	Four units.		None.	Two units.	Three units.	Four units.
Arizona	3	2	1	0	Nebraska	9	17	23	8
Colorado	14	9	4	9	New Mexico	3	1	0	0
Illinois	7	51	45	32	North Dakota	0	25	4	1
Indiana	1	2	27	49	Ohio	6	83	19	57
Iowa	0	48	19	9	South Dakota	0	11	6	7
Kansas	2	26	37	2	Wisconsin	1	58	19	14
Michigan	9	63	16	24	Wyoming	0	1	2	2
Minnesota	0	37	11	19					
Missouri	1	26	11	14	Total	68	472	254	248
Montana	2	12	10	1	Percentage	5.62	45.73	24.61	24.03

Table 70 shows the offerings in French. Only 179 schools, or 17.34 per cent of the total number accredited, included this subject in the program of studies in 1917. Not a school in North Dakota, South Dakota, or Wyoming offered it. On the other hand, each of the four schools in New Mexico offered it; and a fairly goodly number in Illinois, Michigan, Missouri, and Ohio made provision for it. Of the schools which taught the subject, 77, or 7.46 per cent, provided a two-year course; 58, or 5.62 per cent, a three-year course; and 44, or 4.26 per cent, a four-year course. Ten small schools, 38 medium schools, and 131 large schools offered the work.[2]

TABLE 70.—*Offerings in French.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	Two units.	Three units.	Four units.		None.	Two units.	Three units.	Four units.
Arizona	3	3	0	0	Nebraska	48	2	3	4
Colorado	28	4	4	0	New Mexico	0	0	0	4
Illinois	101	15	10	9	North Dakota	30	0	0	0
Indiana	72	6	1	0	Ohio	129	2	25	9
Iowa	71	3	2	0	South Dakota	24	0	0	0
Kansas	63	3	1	0	Wisconsin	84	7	0	1
Michigan	82	23	6	1	Wyoming	5	0	0	0
Minnesota	53	6	2	6					
Missouri	37	2	3	10	Total	853	77	58	44
Montana	23	1	1	0	Percentage	82.65	7.46	5.62	4.26

Table 71 shows the offerings in Spanish. Of the entire number of schools 234, or 22.67 per cent included it in the program of studies in 1917, being 55 more schools than were offering French. All the

[1] Indeed, a more recent study made by the association (1919) shows that at that time 623 of the accredited schools had eliminated the subject entirely and that 89 others had reduced the amount offered.

[2] In 1919 the reports show 579 schools had introduced French.

accredited schools in Arizona and New Mexico offered it, as did also a relatively large number of schools in Illinois and Ohio. Of the schools teaching the subject, 38, or 3.68 per cent, offered it for one year; 155, or 15.01 per cent, for two years; and 41, or 3.97 per cent for three years.[1]

TABLE 71.—*Offerings in Spanish.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	One unit.	Two units.	Three units.		None.	One unit.	Two units.	Three units.
Arizona	0	0	3	3	Nebraska	51	2	3	1
Colorado	19	4	11	2	New Mexico	0	0	0	4
Illinois	49	7	73	6	North Dakota	30	0	0	0
Indiana	69	7	3	0	Ohio	129	2	25	9
Iowa	66	2	8	0	South Dakota	22	0	2	0
Kansas	58	7	2	0	Wisconsin	86	0	4	2
Michigan	98	3	9	2	Wyoming	5	0	0	0
Minnesota	62	2	2	1					
Missouri	35	2	6	9	Total	798	38	155	41
Montana	19	0	4	2	Percentage	77.32	3.68	15.01	3.97

Table 72 shows the offerings in ancient history. Only 42 schools, or 4.07, per cent of all, make no provision whatever for this subject; while 50, or 4.84 per cent, offer but one-half unit in it. It is, however, almost a universal practice to offer the subject for one entire year, since 940, or 91.08 per cent of the schools, report that such is their custom.

TABLE 72.—*Offerings in ancient history.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	0	0	6	Nebraska	1	7	49
Colorado	0	0	36	New Mexico	1	0	3
Illinois	14	2	119	North Dakota	0	2	28
Indiana	0	2	77	Ohio	28	23	122
Iowa	2	5	69	South Dakota	1	0	23
Kansas	2	0	65	Wisconsin	0	4	88
Michigan	1	1	110	Wyoming	0	0	5
Minnesota	0	1	66				
Missouri	0	2	50	Total	42	50	940
Montana	0	1	24	Percentage	4.07	4.84	91.08

Table 73 shows the offerings in medieval and modern history. Ninety-nine schools, or 9.59 per cent, do not teach the subject; 57, or 5.52 per cent, offer it for one-half year; 869, or 84.20 per cent, offer it for one year; and 7, or 0.67 per cent, offer it for one year and a half. The subject is therefore nearly universally accepted as a high-school constant. The three States—Illinois, with 34 schools, Nebraska with

[1] In 1919 Spanish had been introduced by 293 schools.

17 schools, and Ohio with 19 schools—are the ones that lead in the neglect of the subject.

TABLE 73.—*Offerings in medieval and modern history.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	One-half unit.	One unit.	One and one-half units.		None.	One-half unit.	One unit.	One and one-half units.
Arizona	0	0	5	1	Nebraska	17	12	28	0
Colorado	2	0	34	0	New Mexico	0	0	4	0
Illinois	34	3	97	1	North Dakota	39	4	23	0
Indiana	7	0	71	1	Ohio	19	16	128	2
Iowa	8	6	62	0	South Dakota	0	0	24	0
Kansas	5	0	61	1	Wisconsin	1	13	77	1
Michigan	2	0	110	0	Wyoming	0	0	5	0
Minnesota	0	2	65	0					
Missouri	0	1	51	0	Total	99	57	869	7
Montana	1	0	24	0	Percentage	9.59	5.52	84.20	0.67

Table 74 gives the offerings in English history. More than half the schools do not include this subject in their curricula, the exact number that omit it being 588, or 56.97 per cent of the whole. Of the others, 183, or 17.73 per cent, offer a course for a single semester, and 261, or 25.29 per cent, give a course for an entire year. The States in which the subject is, proportionately, least regarded are Arizona and Kansas; the ones in which it is most highly encouraged are Colorado, Illinois, Missouri, Montana, and Wyoming.

TABLE 74.—*Offerings in English history.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	5	1	0	Nebraska	34	17	6
Colorado	16	10	10	New Mexico	2	1	1
Illinois	49	24	62	North Dakota	21	7	2
Indiana	52	14	13	Ohio	100	31	34
Iowa	48	17	11	South Dakota	16	5	3
Kansas	58	0	9	Wisconsin	56	24	12
Michigan	58	9	45	Wyoming	2	2	1
Minnesota	45	13	9				
Missouri	16	6	30	Total	588	183	261
Montana	10	2	13	Percentage	56.97	17.73	25.29

Table 75 gives the offerings in American history and civics. Perhaps the most striking fact here disclosed is that 50 schools, or 4.84 per cent, do not offer the subject at all; and that of these 50 schools, 39 are in Illinois. Nineteen other schools, or 1.84 per cent of the entire number, offer but one-half year's course; 768, or 74.42 per cent, offer a full year's course; 180, or 17.44 per cent, offer a course for a year and a half; and 15, or 1.45 per cent, offer a course

for a full two years. Every school in Arizona, Indiana, Iowa, Michigan, Missouri, Montana, North Dakota, New Mexico, South Dakota, and Wyoming makes some provision for this subject. So does every school except one in each of the following States: Colorado, Kansas, Nebraska, and Wisconsin.

TABLE 75.—*Offerings in American history and civics.*

State.	Number of schools offering—					State.	Number of schools offering—				
	None.	One-half unit.	One unit.	One and one-half units.	Two units.		None.	One-half unit.	One unit.	One and one-half units.	Two units.
Arizona	0	0	4	3	0	Nebraska	1	3	40	12	1
Colorado	1	0	34	1	0	New Mexico	0	0	4	0	0
Illinois	39	1	71	18	3	North Dakota	0	0	30	0	0
Indiana	0	3	67	7	2	Ohio	4	2	150	7	2
Iowa	0	0	65	10	1	South Dakota	0	1	23	0	0
Kansas	1	0	15	51	0	Wisconsin	1	0	44	47	0
Michigan	0	0	102	8	2	Wyoming	0	0	2	0	3
Minnesota	3	3	58	2	1						
Missouri	0	5	33	14	0	Total	50	19	768	180	15
Montana	0	1	24	0	0	Percentage	4.84	1.84	74.42	17.44	1.45

Table 76 shows the offerings in algebra. Seventy-eight per cent (805 schools) of all the schools of the association offer this subject for a period of one and one-half years. Eighty-one, or 7.84 per cent, offer it for a period of one year, and 146, or 14.14 per cent, offer it for two years. The one-unit ideal prevails to the greatest extent in Illinois, North Dakota, South Dakota, and Wisconsin. The two-unit ideal seems to find greatest support in Colorado, Kansas, Missouri, and Ohio. Thirty of the 81 schools offering but a single unit in algebra are of the small group, whereas but 18 of the 146 schools which offer two units of the subject are of that group. Every school in the association makes some provision for the subject.

TABLE 76.—*Offerings in algebra.*

State.	Number of schools offering—			State.	Number of schools offering—		
	1 unit.	1½ units.	2 units.		1 unit.	1½ units.	2 units.
Arizona	1	5	0	Nebraska	3	54	0
Colorado	4	22	10	New Mexico	0	4	0
Illinois	18	109	8	North Dakota	8	23	0
Indiana	1	67	11	Ohio	5	131	39
Iowa	1	68	7	South Dakota	5	19	0
Kansas	0	16	51	Wisconsin	26	61	5
Michigan	0	104	8	Wyoming	0	4	1
Minnesota	3	62	2				
Missouri	5	33	14	Total	81	805	146
Montana	1	24	0	Percentage	7.84	78.00	14.14

Table 77 shows the offerings in geometry. As in the case of algebra, every school offers some work in the subject, 175, or 16.95 per cent, providing a one-unit course, and 857, or 83.04 per cent, offering two units. A large percentage of the schools in Indiana, North Dakota, and Wisconsin seem to prefer the single unit plan; elsewhere the ideal of a unit and one-half prevails.

TABLE 77.—*Offerings in geometry.*

State.	Number of schools offering—		State.	Number of schools offering—	
	1 unit.	1½ units.		1 unit.	1½ units.
Arizona	1	5	Nebraska	8	49
Colorado	0	36	New Mexico	0	4
Illinois	15	120	North Dakota	12	18
Indiana	49	30	Ohio	9	156
Iowa	9	67	South Dakota	7	17
Kansas	5	62	Wisconsin	41	51
Michigan	2	110	Wyoming	0	5
Minnesota	11	56			
Missouri	5	47	Total	175	857
Montana	1	24	Percentage	16.95	83.04

Table 78 shows the offerings in trigonometry. Only 357 schools, or 34.6 per cent, offer the subject, and these do so for one-half year. More than 65 per cent of the schools (675) do not offer the subject at all. In one State, North Dakota, the subject is not found in a single school. Few of the small schools in any of the States make provision for it, and only a relatively small number of medium schools do so. The exceptions to this statement are the schools in Michigan, Missouri, and Montana.

TABLE 78.—*Offerings in trigonometry.*

State.	Number of schools offering—		State.	Number of schools offering—	
	None.	½ unit.		None.	½ unit.
Arizona	1	5	Nebraska	47	10
Colorado	22	14	New Mexico	2	2
Illinois	78	57	North Dakota	30	0
Indiana	44	35	Ohio	124	41
Iowa	63	13	South Dakota	10	5
Kansas	60	7	Wisconsin	79	13
Michigan	32	80	Wyoming	4	1
Minnesota	57	10			
Missouri	7	45	Total	675	357
Montana	6	19	Percentage	65.40	34.60

Table 79 shows the offerings in physics. This subject, until recently commonly prescribed for admission to almost all colleges and universities, seems to have a secure place in all but 19 of the accredited schools. Of the 1,013 schools which include the subject in their program of study, 990, or 95.93 per cent, offer it for one

year; 15, or 1.45 per cent, offer it for a year and a half; and only 8, or 0.77 per cent, offer it for a period of two years.

TABLE 79.—*Offerings in physics.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	One unit.	One and one-half units.	Two units.		None.	One unit.	One and one-half units.	Two units.
Arizona	0	6	0	0	Nebraska	0	56	1	0
Colorado	0	36	0	0	New Mexico	0	4	0	0
Illinois	1	129	4	1	North Dakota	3	27	0	0
Indiana	3	71	5	0	Ohio	5	158	0	2
Iowa	0	75	0	1	South Dakota	0	24	0	0
Kansas	1	66	0	0	Wisconsin	0	91	1	0
Michigan	1	110	0	1	Wyoming	0	4	0	1
Minnesota	2	64	0	1					
Missouri	3	44	4	1	Total	19	990	15	8
Montana	0	25	0	0	Percentage	1.84	95.93	1.45	0.77

Table 80 shows the offerings in chemistry. No provision for the study is made by 185 schools, or 17.92 per cent, whereas 786, or 76.16 per cent, offer it for one year; 47, or 4.55 per cent, for a year and a half; and 14, or 1.35 per cent, for two years. Iowa, Kansas, South Dakota, and Wisconsin are the four States which give least attention to the subject.

TABLE 80.—*Offerings in chemistry.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	One unit.	One and one-half units.	Two units.		None.	One unit.	One and one-half units.	Two units.
Arizona	0	6	0	0	Nebraska	12	45	0	0
Colorado	0	32	1	3	New Mexico	0	3	0	1
Illinois	9	115	8	3	North Dakota	3	27	0	0
Indiana	18	57	4	0	Ohio	0	135	28	2
Iowa	38	37	0	1	South Dakota	8	16	0	0
Kansas	35	32	0	0	Wisconsin	41	51	0	0
Michigan	1	108	0	3	Wyoming	0	4	0	1
Minnesota	1	66	0	0					
Missouri	17	29	6	0	Total	185	786	47	14
Montana	2	23	0	0	Percentage	17.92	76.16	4.55	1.35

Table 81 shows the offerings in botany. Nearly one-third of the schools (311, or 30.13 per cent) do not teach the subject; 365, or 35.37 per cent, offer it for one-half year; 326, or 31.58 per cent, offer it for a full year; and 30, or 2.90 per cent, offer it for a year and a half. The States in which the subject is conspicuous because of its less frequent appearance are Arizona, Missouri, New Mexico, Ohio, and Wyoming. On the other hand, Minnesota stresses the subject more than any other State.

TABLE 81.—*Offerings in botany.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	One-half unit.	One unit.	One and one-half units.		None.	One-half unit.	One unit.	One and one-half units
Arizona	6	0	0	0	Nebraska	2	48	7	0
Colorado	13	16	7	0	New Mexico	3	1	0	0
Illinois	12	77	40	6	North Dakota	7	11	12	0
Indiana	15	4	58	2	Ohio	98	51	14	2
Iowa	27	34	15	0	South Dakota	11	6	7	0
Kansas	28	1	38	0	Wisconsin	16	31	43	2
Michigan	19	38	55	0	Wyoming	4	1	0	0
Minnesota	6	26	17	18					
Missouri	35	11	6	0	Total	311	365	326	30
Montana	9	9	7	0	Percentage	30.13	35.37	31.58	2.91

Table 82 shows the offerings in zoology. This subject seems not to be valued very highly as a branch of instruction in secondary schools, as 727, or 70.44 per cent, of the schools do not include it at all in the programs of study. Of the others, 218, or 21.11 per cent, offer it for one-half year; 79, or 7.65 per cent, offer it for one year; and 8, or 0.77 per cent, offer it for a year and a half. The only States which seem to give it nearly equal recognition with other sciences are Colorado, Illinois, Iowa, and possibly Minnesota.

TABLE 82.—*Offerings in zoology.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	One-half unit.	One unit.	One and one-half units.		None.	One-half unit.	One unit.	One and one-half units.
Arizona	6	0	0	0	Nebraska	47	8	2	0
Colorado	17	17	2	0	New Mexico	3	0	1	0
Illinois	16	76	36	7	North Dakota	17	10	3	0
Indiana	65	6	7	1	Ohio	139	19	7	0
Iowa	43	26	7	0	South Dakota	19	3	2	0
Kansas	59	3	5	0	Wisconsin	80	10	2	0
Michigan	103	8	1	0	Wyoming	5	0	0	0
Minnesota	47	18	2	0					
Missouri	43	7	2	0	Total	727	218	79	8
Montana	48	7	0	0	Percentage	70.44	21.11	7.65	0.77

Table 83 shows the offerings in general biology. Here again only a very small number of schools make provision for the subject, only 200, or 19.32 per cent, offering it in any form. No doubt the schools which offer separate courses in botany and zoology rarely offer also a course in general biology. The fairest way, therefore, to judge of the extent of offerings in the biological sciences would be to combine the figures of the three groups. Adopting this plan the figures would show conditions as revealed in Table 84.

Arizona, Michigan, and Ohio take the lead in making provision for courses in general biology.

TABLE 83.—*Offerings in general biology.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One unit.	One and one-half units.		None.	One unit.	One and one-half units
Arizona	2	4	0	Nebraska	56	1	0
Colorado	25	11	0	New Mexico	3	1	0
Illinois	125	8	2	North Dakota	29	1	0
Indiana	74	5	0	Ohio	113	52	0
Iowa	61	15	0	South Dakota	23	1	0
Kansas	64	3	0	Wisconsin	77	14	1
Michigan	58	54	0	Wyoming	2	2	1
Minnesota	53	14	0				
Missouri	46	6	0	Total	832	196	4
Montana	21	4	0	Percentage	80.62	18.99	0.33

TABLE 84.—*Summary of offerings in biological science.*

	One-half unit.	One unit.	One and one-half units.	Total.
Schools offering botany	365	326	30	721
Schools offering zoology	218	79	8	305
Schools offering general biology	0	196	4	200
Total	583	601	42	1,226

Table 85 shows the offerings in physiology. No provision for the subject is made by 480 schools, or 46.51 per cent; 484, or 46.89 per cent, offer work to the extent of a half unit; and 68, or 6.58 per cent, offer a full year's study. Illinois, Iowa, Kansas, Nebraska, and Wisconsin give the most attention to the subject; whereas Arizona, Missouri, Montana, Ohio, and Wyoming give little place to it. Considered in accordance with the size of the school, the numbers in which the subject is not offered at all are: Large schools, 92; medium schools, 265; small schools, 123.

TABLE 85.—*Offerings in physiology.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	5	1	0	Nebraska	23	32	2
Colorado	26	10	0	New Mexico	2	2	0
Illinois	35	88	12	North Dakota	13	16	1
Indiana	55	15	9	Ohio	109	48	8
Iowa	9	66	1	South Dakota	12	11	1
Kansas	2	58	7	Wisconsin	27	60	5
Michigan	63	44	5	Wyoming	5	0	0
Minnesota	35	29	3				
Missouri	38	1	13	Total	480	484	68
Montana	21	3	1	Percentage	46.51	46.89	6.58

Table 86 shows the offerings in physical geography. The study is not offered at all by 446 schools, or 43.21 per cent; 419, or 40.60 per cent, offer it for a half year; and 167, or 16.18 per cent, only offer it for a full year. Illinois, Michigan, Ohio, and Wisconsin give most attention to the subject; whereas Kansas, Missouri, and New Mexico give least.

TABLE 86.—*Offerings in physical geography.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	3	2	1	Nebraska	29	28	0
Colorado	21	12	8	New Mexico	3	1	0
Illinois	28	87	20	North Dakota	9	15	6
Indiana	35	24	20	Ohio	66	75	24
Iowa	33	41	2	South Dakota	5	17	2
Kansas	56	9	2	Wisconsin	33	38	21
Michigan	36	37	39	Wyoming	3	0	2
Minnesota	29	27	11				
Missouri	46	0	6	Total	446	419	167
Montana	11	6	8	Percentage	43.21	40.60	16.18

Table 87 shows the offerings in geology. Very few schools give this subject an independent place in the program of studies, 956, or 92.63 per cent, not recognizing it at all; 58, or 5.6 per cent, offering it for a half year; and 18, or 1.74 per cent, offering it for a full year. Colorado and Missouri give most attention to it.

TABLE 87.—*Offerings in geology.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	5	1	0	Nebraska	55	2	0
Colorado	28	8	0	New Mexico	4	0	0
Illinois	125	7	3	North Dakota	28	2	0
Indiana	79	0	0	Ohio	145	17	3
Iowa	75	1	0	South Dakota	22	2	0
Kansas	66	1	0	Wisconsin	87	2	3
Michigan	103	2	7	Wyoming	5	0	0
Minnesota	66	1	0				
Missouri	40	11	1	Total	956	58	18
Montana	23	1	1	Percentage	92.63	5.62	1.74

Table 88 shows the offerings in general science. Nearly one-half the schools offer this study; 189, or 18.31 per cent, offering it for a half year; and 345, or 33.43 per cent, for an entire year. Nevertheless, 498 schools, or 48.25 per cent, do not offer it at all. In Colorado, Iowa, Kansas, Montana, Nebraska, New Mexico, South Dakota, Wisconsin, and Wyoming more than 50 per cent of the schools include the subject in their curricula. Considered in respect

to size of school, the ones not offering the subject are: Large schools, 119; medium schools, 260; small schools, 119.

TABLE 88.—*Offerings in general science.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	3	0	3	Nebraska	18	31	8
Colorado	19	3	23	New Mexico	0	2	2
Illinois	67	19	49	North Dakota	15	8	7
Indiana	53	4	22	Ohio	89	21	55
Iowa	26	29	21	South Dakota	8	12	4
Kansas	16	11	40	Wisconsin	36	28	28
Michigan	62	10	40	Wyoming	2	0	3
Minnesota	40	8	19				
Missouri	42	0	10	Total	498	189	345
Montana	11	3	11	Percentage	48.25	18.31	33.43

Table 89 shows the offerings in sociology. Only 41 schools claim to offer a separate and distinct course in the subject.

TABLE 89.—*Offerings in sociology.*

State.	Number of schools offering—			State.	Number of schools offering—		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	6	0	0	Nebraska	57	0	0
Colorado	36	0	0	New Mexico	4	0	0
Illinois	126	7	2	North Dakota	30	0	0
Indiana	77	2	0	Ohio	153	7	5
Iowa	74	2	0	South Dakota	22	2	0
Kansas	67	0	0	Wisconsin	87	4	1
Michigan	110	2	0	Wyoming	5	0	0
Minnesota	63	3	1				
Missouri	49	3	0	Total	991	32	9
Montana	25	0	0	Percentage	96.02	3.10	0.87

Table 90 shows the offerings in economics. It is, perhaps, surprising to most persons to learn that nearly half of the schools in the association include this subject in their program of studies. Thirty-nine, or 3.77 per cent, offer the study for an entire year; 455, or 44.08 per cent, offer it for one-half year; while 538, or 52.13 per cent, omit it altogether. Every school in Iowa offers a course in the subject, and more than half of the schools in Colorado, Illinois, Minnesota, Missouri, Montana, and Wisconsin make some provision for it. On the other hand, a relatively small number of schools do so in Indiana, Michigan, Nebraska, and New Mexico.

TABLE 90.—*Offerings in economics.*

State.	Schools offering—			State.	Schools offering.		
	None.	One-half unit.	One unit.		None.	One-half unit.	One unit.
Arizona	4	2	0	Nebraska	44	12	1
Colorado	17	18	1	New Mexico	3	1	0
Illinois	50	79	6	North Dakota	15	15	0
Indiana	65	12	2	Ohio	97	61	7
Iowa	0	74	2	South Dakota	13	10	1
Kansas	37	22	8	Wisconsin	41	47	4
Michigan	77	33	2	Wyoming	3	1	1
Minnesota	22	44	1				
Missouri	25	26	3	Total	523	469	40
Montana	10	14	1	Percentage	52.13	44.08	3.77

Table 91 shows the offerings in public speaking. Here again it is doubtless contrary to general impression that nearly one-third of the schools (30.33 per cent) make definite offerings in the subject. Seventeen schools offer one-fourth of a unit of work; 56 offer one-half unit of work; 114 offer a full unit; and 26 offer two units. The States in which the subject is found most extensively are Indiana and Minnesota.

TABLE 91.—*Offerings in public speaking.*

State.	Number of schools offering—				
	None.	One-fourth unit.	One-half unit.	One unit.	Two units.
Arizona	4	0	2	0	0
Colorado	25	2	14	5	0
Illinois	95	1	17	10	0
Indiana	38	3	17	15	6
Iowa	52	2	12	9	1
Kansas	52	1	10	4	0
Michigan	84	2	9	16	1
Minnesota	34	0	10	13	4
Missouri	46	0	4	2	3
Montana	12	1	8	4	0
Nebraska	42	0	11	4	0
New Mexico	4	0	0	0	0
North Dakota	21	0	5	3	1
Ohio	124	3	19	17	2
South Dakota	12	0	11	1	0
Wisconsin	71	1	14	4	2
Wyoming	3	1	0	1	0
Total	719	17	156	114	26
Percentage	69.67	1.64	15.11	11.04	2.51

Table 92 shows the average number of academic units which are offered in the three types of schools—large, medium, and small—in each State, and the average for all types of schools combined. The range in the large schools is from 23 to 44; in the medium schools from 17 to 34; in the small schools from 14 to 47; and in all types combined from 18 to 35.

TABLE 92.—*Average of academic units offered by the three types of school.*

State.	Large.	Medium.	Small.	All combined.
Arizona	44	26	47	32
Colorado	31	22	21	24
Indiana	26	22	21	29
Illinois	28	22	21	24
Iowa	25	21	20	22
Kansas	23	21	14	20
Michigan	28	21	18	23
Minnesota	29	21	19	22
Missouri	32	21	19	24
Montana	25	24	21	23
Nebraska	37	20	16	19
New Mexico		34	28	29
North Dakota	27	21	19	20
Ohio	27	21	20	23
South Dakota	32	22	20	21
Wisconsin	24	17	17	18
Wyoming		31	38	35

Table 93 gives a complete summary of the offerings, in percentages, of academic subjects.

TABLE 93.—*Curricular offerings in academic subjects.*

Subject.	Percentages of schools offering—							
	No units.	One-half unit.	One unit.	One and one-half units.	Two units.	Three units.	Four units.	Over four units.
English	0.00	0.00	0.00	0.00	0.00	8.33	85.17	6.49
Latin	2.32				8.52	8.43	80.71	
Greek	96.41				3.59			
German	5.62				45.73	24.61	24.03	
French	82.05				7.46	5.62	4.26	
Spanish	77.32		3.68		15.01	3.97		
Ancient history	4.07	4.84	91.08					
Medieval and modern history	9.59	5.52	84.20	.67				
English history	56.97	17.73	25.29					
American history and civics	4.81	1.84	74.42	17.44	1.45			
Algebra	.00	.00	7.84	78.00	14.14			
Geometry	.00	.00	16.95	83.04				
Trigonometry	65.40	34.60						
Physics	1.84	.00	95.93	1.45	.77			
Chemistry	17.92	.00	76.16	4.55	1.35			
Botany	30.13	35.37	31.58	2.90				
Zoology	79.44	21.11	7.65	.77				
General biology	80.62		18.99	.33				
Physiology	46.51	46.89	6.58					
Physical geography	43.21	40.00	16.18					
Geology	92.03	5.62	1.74					
General science	48.25	18.31	33.43					
Sociology	96.02	3.10	.87					
Economics	52.13	44.08	3.77					
Public speaking	69.67	16.75	11.04	2.51				

Table 94 shows the offerings in art. Exactly 600 schools, or 58.13 per cent, make no provision for the subject; 218 schools, or 21.12 per cent, offer less than one unit of the work; 144 schools, or 13.95 per cent, offer from one to three units of work; and 70 schools, or 6.78 per cent, offer more than three units. Schools that provide less than a unit in the work can scarcely be giving more than incidental attention to it, and not any thoroughly systematized instruction of a contin-

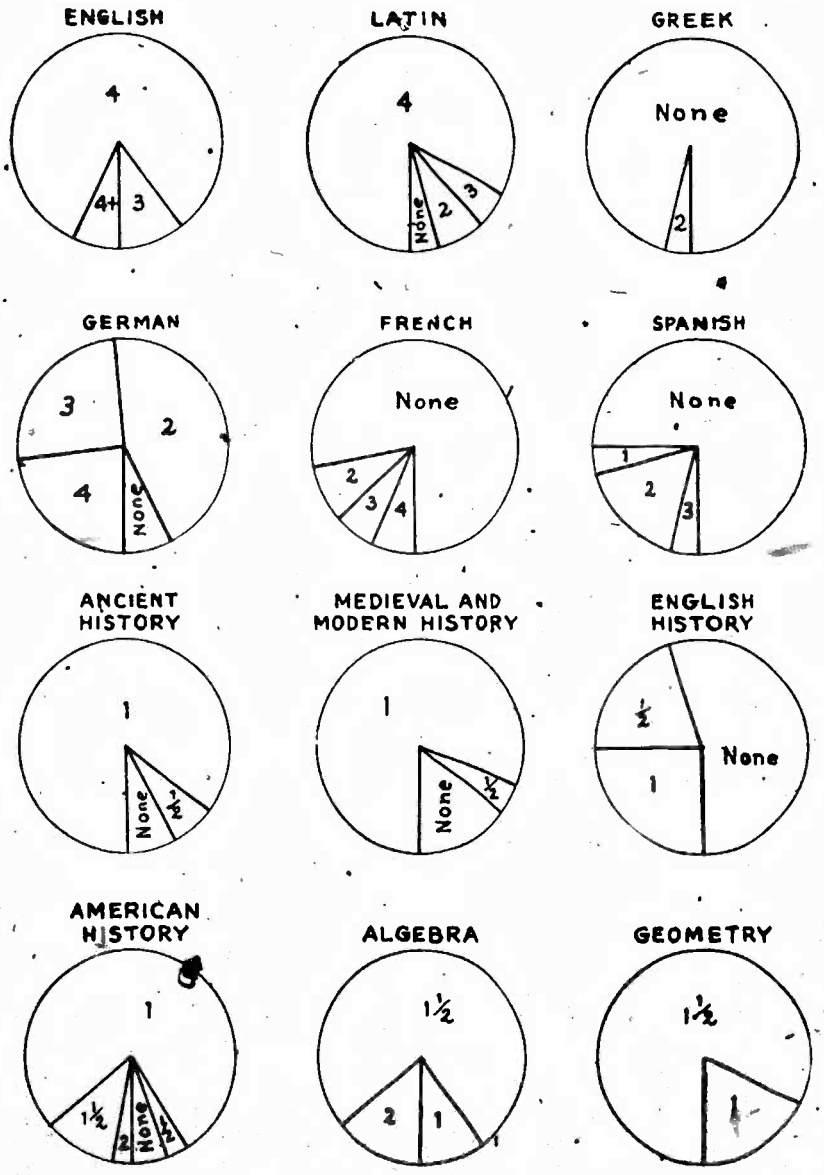


CHART XXXIV.—Shows graphically the facts revealed in Tables 66–77, namely, the extent of some of the so-called academic offerings of the Programs of Study, in units.

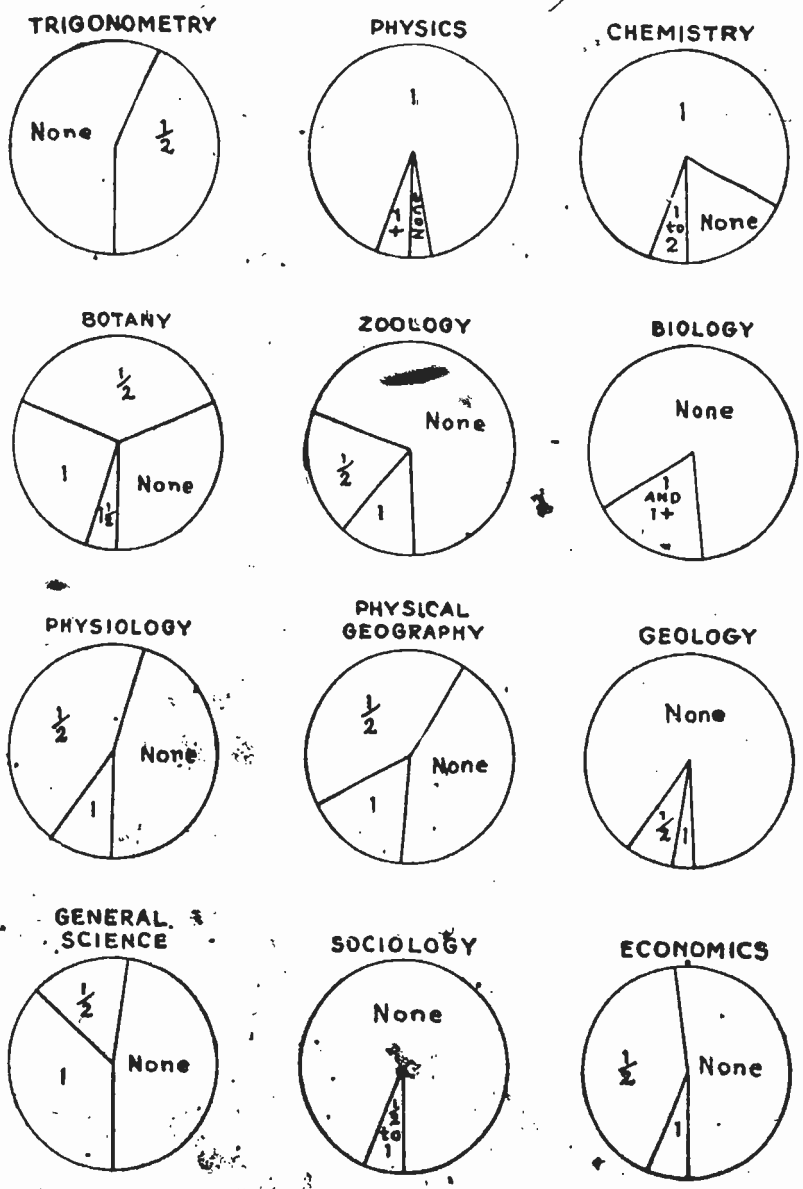


CHART XXXV.—Shows graphically the facts revealed in Tables 78–90, namely, the extent of the offerings of additional so-called academic subjects in the Program of Studies, in units.

uous character. If this be true, the 218 schools which acknowledge giving credit for less than a unit's work might perhaps fairly be added to those offering no work in the subject. If so, the number of schools not teaching the subject would be 818, or 79.26 per cent of all. In Arizona, Illinois, Indiana, and Wyoming more than half the schools provide some instruction in the subject. On the other hand, in Kansas, Nebraska, and New Mexico very few schools give recognition to the study.

TABLE 94.—*Offerings in art.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	Less than one unit.	One to three units.	More than three units.		None.	Less than one unit.	One to three units.	More than three units.
Arizona	1	3	2	0	Nebraska	53	2	1	1
Colorado	20	13	3	0	New Mexico	3	1	0	0
Illinois	53	35	28	19	North Dakota	23	6	1	0
Indiana	8	45	19	7	Ohio	99	16	31	19
Iowa	59	12	5	0	South Dakota	16	6	1	1
Kansas	54	8	4	1	Wisconsin	73	11	6	2
Michigan	57	32	18	5	Wyoming	2	2	1	0
Minnesota	36	16	6	9					
Missouri	30	7	10	5	Total	600	218	144	70
Montana	13	3	8	1	Percentage	58.13	21.12	13.95	6.78

Table 95 shows the offerings in music. No provision whatever for credit for work done in the subject is made by 384 schools, or 37.20 per cent; 425, or 41.18 per cent, allow credit to be gained to the extent of less than one unit; 187, or 18.12 per cent, provide from one to three units work; and 36, or 3.48 per cent, make offerings in excess of three units. It is scarcely believable that the schools that give less than a unit's credit in the subject really offer music of any different character than incidental chorus, or orchestral, or glee work. Hence it seems fair to include these 425 schools with those confessing to offering no class work in the subject whatever. On this assumption the results would leave only 223 schools, or 21.68 per cent, of the whole number, which make any real pretense of giving creditable instruction in the subject.

TABLE 95.—*Offerings in music.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	Less than one unit.	One to three units.	Over three units.		None.	Less than one unit.	One to three units.	Over three units.
Arizona	0	3	2	1	Nebraska	25	22	7	3
Colorado	11	24	1	0	New Mexico	1	3	0	0
Illinois	46	58	25	6	North Dakota	3	22	5	0
Indiana	5	51	20	3	Ohio	78	23	54	10
Iowa	36	28	10	2	South Dakota	10	12	2	0
Kansas	21	31	13	2	Wisconsin	60	25	6	1
Michigan	33	66	11	3	Wyoming	1	2	2	0
Minnesota	20	33	12	2					
Missouri	25	18	7	2	Total	384	425	187	36
Montana	9	5	10	1	Percentage	37.20	41.18	18.12	3.48

Table 96 shows the offerings in agriculture. No provision whatever for the subject is made by 428 schools, or 41.46 per cent; 163, or 15.79 per cent, offer one-half unit's work; 246, or 23.83 per cent, offer one unit's work; 78, or 7.54 per cent, offer two units' work; 42, or 4.06 per cent, offer three units' work; and 75, or 7.26 per cent, offer four units' work. Most of the schools in Iowa, Kansas, Nebraska, and Minnesota include some work of this kind in their programs of study; and approximately half of the schools of Indiana, New Mexico, Ohio, and South Dakota give some attention to it. Of the States which do provide for the teaching of the subject, Minnesota leads all others in the extent of the offerings, 24 schools providing a four years' course, and 11 others a three years' course. Considered from the standpoint of the size of the schools, the tables show that 148, or 36.7 per cent, of the large schools; 178, or 68.1 per cent, of the medium schools; and 137, or 57.3 per cent, of the small schools make some provision for the work.

TABLE 96.—*Offerings in agriculture.*

State.	Schools offering—					
	None.	One-half unit.	One unit.	Two units.	Three units.	Four units.
Arizona	4	0	1	0	1	0
Colorado	24	2	7	1	1	1
Illinois	84	4	21	21	2	3
Indiana	11	3	26	8	1	0
Iowa	6	35	33	0	0	2
Kansas	3	5	54	4	0	1
Michigan	64	8	8	10	8	14
Minnesota	20	2	2	8	11	24
Missouri	19	0	32	1	0	0
Montana	16	1	6	0	0	3
Nebraska	4	26	9	5	8	5
New Mexico	2	1	1	0	0	0
North Dakota	17	1	6	2	0	4
Ohio	54	58	34	13	4	2
South Dakota	8	5	5	4	1	1
Wisconsin	58	12	1	1	5	15
Wyoming	5	0	0	0	0	0
Total	428	163	246	78	42	75
Percentage	41.46	15.79	23.83	7.54	4.06	7.26

Table 97 shows the offerings in cooking. All but 172 schools, or 16.66 per cent, make provision of some sort for this subject, 538 schools, or 52.13 per cent, offering it for one year; 264, or 25.58 per cent, offering it for two years; and 58, or 5.62 per cent, offering it for a longer period than two years. In Michigan, Ohio, and South Dakota approximately one-third of the schools do not include the work in the program of studies. In Arizona, Iowa, Kansas, Minnesota, Montana, New Mexico, North Dakota, and Wyoming, on the other hand, the subject is to be found in nearly every school. Every large school in the association, except 21, makes provision for the work. Of the medium schools, 80 omit the subject, and of the small schools, 70 do not include it.

TABLE 97.—*Offerings in cooking.*

State.	Number of schools offering—				State.	Number of schools offering—			
	None.	One unit.	Two units.	Over two units.		None.	One unit.	Two units.	Over two units.
Arizona	0	3	3	0	Nebraska	8	42	7	0
Colorado	5	22	7	2	New Mexico	0	4	0	0
Illinois	18	68	45	4	North Dakota	0	21	5	1
Indiana	6	43	25	5	Ohio	58	55	27	25
Iowa	3	51	18	1	South Dakota	7	12	5	0
Kansas	2	36	21	5	Wisconsin	15	54	18	5
Michigan	34	48	28	2	Wyoming	1	2	2	0
Minnesota	1	31	31	4					
Missouri	13	29	8	2	Total	172	538	261	58
Montana	1	11	11	2	Percentage	16.66	52.13	25.58	5.62

Table 98 shows the offerings in sewing. Somewhat fewer schools make provision for this subject than for cooking, though the difference is not large. All but 219 schools, or 21.22 per cent, include some work of the kind; 501, or 48.54 per cent, offer a single unit in it; 252, or 24.41 per cent, offer two units in it; and 60, or 5.81 per cent, offer three units in it. Every school in Arizona and North Dakota makes provision for the subject, as do most of the schools in Indiana, Kansas, Minnesota, Montana, New Mexico, and Wyoming.

TABLE 98.—*Offerings in sewing.*

	Number of schools offering—					Number of schools offering—			
	None.	One unit.	Two units.	Over two units.		None.	One unit.	Two units.	Over two units.
Arizona	0	3	3	0	Nebraska	21	33	3	0
Colorado	8	20	7	1	New Mexico	1	3	0	0
Illinois	19	68	43	5	North Dakota	0	25	4	1
Indiana	8	40	25	6	Ohio	71	47	22	25
Iowa	11	47	18	0	South Dakota	7	11	5	1
Kansas	3	38	24	2	Wisconsin	14	50	23	5
Michigan	30	45	31	6	Wyoming	1	3	1	0
Minnesota	5	30	29	3					
Missouri	16	28	5	3	Total	219	501	252	60
Montana	4	10	9	2	Percentage	21.22	48.54	24.41	5.81

Table 99 shows the offerings in manual training. The subject is not included at all by 223 schools, or 21.60 per cent; 209, or 20.25 per cent, give one unit's work; 358, or 34.69 per cent, give two units' work; and 155, or 15.01 per cent, give four units' work. The subject is found in nearly every school in Arizona, Iowa, Kansas, Minnesota, New Mexico, North Dakota, and Wyoming, and in three-fourths of the schools of Colorado, Illinois, Indiana, Missouri, Montana, Nebraska, and South Dakota. Ohio, Michigan, and Wisconsin, though offering the work in many schools, have a greater percentage of schools which do not include the subject than any of the others.

Only 28 large schools in the association omit the subject from their curricula.

TABLE 99.—*Offerings in manual training.*

State.	Number of schools offering—				
	None.	One unit.	Two units.	Three units.	Four units.
Arizona	1	1	3	0	1
Colorado	8	15	7	2	4
Illinois	18	25	54	8	30
Indiana	12	18	28	13	8
Iowa	8	17	33	10	8
Kansas	2	10	35	15	5
Michigan	32	24	31	5	20
Minnesota	2	5	27	10	23
Missouri	13	10	21	2	6
Montana	5	3	5	2	10
Nebraska	14	22	18	0	3
New Mexico	0	3	1	0	0
North Dakota	1	10	15	3	1
Ohio	74	38	32	9	12
South Dakota	5	0	8	2	3
Wisconsin	26	2	37	6	21
Wyoming	2	0	3	0	0
Total	223	209	358	87	155
Percentage	21.60	20.25	34.69	8.43	15.01

Tables 100–104 show the offerings in commercial work.

In bookkeeping, 189 schools, or 18.31 per cent, make no provision whatever; 432, or 41.86 per cent, offer the subject for one year; 370, or 35.85 per cent, offer it for two years; 36, or 3.48 per cent, offer it for three years; and only 5, or 0.48 per cent, offer it for four years. More than three-fourths of the schools, therefore, or 77.71 per cent, offer the subject for a year or two years.

TABLE 100.—*Offerings in bookkeeping.*

State.	Number of schools offering—				
	None.	One unit.	Two units.	Three units.	Four units.
Arizona	0	2	3	1	0
Colorado	6	14	16	0	0
Illinois	18	48	63	4	2
Indiana	15	33	29	2	0
Iowa	10	44	21	1	0
Kansas	14	25	28	0	0
Michigan	10	38	59	5	0
Minnesota	8	24	34	1	0
Missouri	18	19	15	0	0
Montana	1	8	14	2	0
Nebraska	13	35	8	1	0
New Mexico	0	3	1	0	0
North Dakota	7	21	2	0	0
Ohio	48	49	46	19	3
South Dakota	9	9	6	0	0
Wisconsin	12	58	22	0	0
Wyoming	0	2	3	0	0
Total	189	432	370	36	5
Percentage	18.31	41.86	35.85	3.48	0.48

In typewriting, 328 schools, or 31.78 per cent, make no offerings; 407, or 39.43 per cent, provide one unit's work; 272, or 26.35 per cent,

provide two units' work; 23, or 2.22 per cent, provide three units' work; and only 2 schools, or 0.02 per cent, provide four units' work. Thus the mode of the association is one or two units.

TABLE 101.—*Offerings in typewriting.*

State.	Number of schools offering—				
	None.	One unit.	Two units.	Three units.	Four units.
Arizona	0	3	2	1	0
Colorado	8	12	16	0	0
Illinois	32	47	51	4	1
Indiana	28	36	15	0	0
Iowa	33	12	23	7	1
Kansas	16	25	28	0	0
Michigan	28	57	25	2	0
Minnesota	14	32	18	3	0
Missouri	20	21	9	2	0
Montana	3	7	14	1	0
Nebraska	25	19	13	0	0
New Mexico	1	3	0	0	0
North Dakota	12	15	3	0	0
Ohio	73	65	25	2	0
South Dakota	13	9	2	0	0
Wisconsin	22	41	28	1	0
Wyoming	0	3	2	0	0
Total	328	407	272	23	2
Percentage	31.78	39.43	26.35	2.22	0.02

Stenography is offered in all except 297, or 28.77 per cent of the schools; 278, or 26.93 per cent, offer one unit's work; 430, or 41.66 per cent, offer two units' work; 25, or 2.42 per cent, offer three units' work; and 2 schools, or 0.02 per cent, offer four units' work. Every large school except 23 (15 of which are in Ohio) makes some pretense at teaching the subject. Among the small schools, 132 omit it, and among the medium schools, 142 do not include it.

TABLE 102.—*Offerings in stenography.*

State.	Number of schools offering—				
	None.	One unit.	Two units.	Three units.	Four units.
Arizona	0	4	3	0	0
Colorado	9	8	19	0	0
Illinois	28	25	73	8	1
Indiana	24	25	29	1	0
Iowa	31	13	28	4	0
Kansas	20	15	31	1	0
Michigan	20	26	62	4	0
Minnesota	12	25	27	3	0
Missouri	21	15	16	0	0
Montana	2	6	17	0	0
Nebraska	23	18	16	0	0
New Mexico	1	2	1	0	0
North Dakota	13	11	6	0	0
Ohio	63	50	50	2	0
South Dakota	12	8	4	0	0
Wisconsin	18	25	46	2	1
Wyoming	0	3	2	0	0
Total	297	278	430	25	2
Percentage	28.77	26.93	41.66	2.42	0.02

In commercial law the figures reveal the following facts: 420 schools, or 40.69 per cent, do not teach the subject; 559 schools, or 54.16 per cent, offer it for one-half year; and 53 schools, or 5.13 per cent, give it a full year's work. The variation in practices in the several States is not marked. The subject is taught in all the large schools except 44.

TABLE 103. *Offerings in commercial law.*

State	Schools offering— None.	One-half unit.	One unit.	State.	Schools offering— None.	One-half unit.	One unit.
Arizona	2	3	1	Nebraska	32	25	0
Colorado	21	15	0	New Mexico	1	3	0
Illinois	35	94	6	North Dakota	15	14	1
Indiana	43	35	1	Ohio	65	93	7
Iowa	27	34	15	South Dakota	11	13	0
Kansas	29	36	2	Wisconsin	42	46	4
Michigan	33	71	8	Wyoming	1	2	2
Minnesota	23	41	3				
Missouri	33	19	0	Total	420	559	53
Montana	7	15	3	Percentage	40.69	54.16	5.13

In commercial arithmetic no provision for the work is made in 236 schools, or 22.86 per cent; 459, or 44.47 per cent, offer an amount equal to one-half unit; and 327, or 32.65 per cent, include a full year's course. Here, again, the variations among the several States are not conspicuous. There are but 28 of the large schools which do not offer some opportunity to carry forward this branch of study.

TABLE 104.—*Offerings in commercial arithmetic.*

State.	Schools offering— None.	One-half unit.	One unit.	State.	Schools offering— None.	One-half unit.	One unit.
Arizona	0	3	3	Nebraska	24	22	11
Colorado	6	17	13	New Mexico	0	4	0
Illinois	17	45	73	North Dakota	13	16	1
Indiana	6	62	11	Ohio	43	62	60
Iowa	24	33	19	South Dakota	11	10	3
Kansas	22	21	24	Wisconsin	12	47	33
Michigan	14	57	41	Wyoming	1	2	2
Missouri	29	17	6				
Minnesota	14	34	19	Total	236	459	327
Montana	0	7	18	Percentage	22.86	44.47	32.65

Table 105 shows the offerings in normal training. Some of this training as a part of the regular courses is offered by 410 high schools, or 39.72 per cent of all. Something less than five units is offered by 359, or 34.78 per cent; 28, or 2.71 per cent, offer between 5 and 10 units; 6, or 0.58 per cent, offer something between 10 and 15 units; and 17 1.64 per cent, offer more than 15 units. The States in which this type

of work is somewhat conspicuous are Iowa, Kansas, Minnesota, Missouri, North Dakota, and Nebraska. The States which give little recognition to the subject are Arizona, Colorado, Indiana, Michigan, Montana, New Mexico, Ohio, and Wisconsin. With over 400 schools teaching the subject, it is a fair query to raise whether the association ought not to include the subject on the lists of units recommended for acceptance by colleges.

TABLE 105.—*Offerings in normal training.*

State.	Number of schools offering—				
	None.	One-half to five units.	Six to ten units.	Eleven to fifteen units.	Over fifteen units.
Arizona	5	0	0	0	1
Colorado	27	9	0	0	0
Illinois	94	39	0	0	2
Indiana	77	2	0	0	0
Iowa	23	43	10	0	0
Kansas	4	62	1	0	0
Michigan	99	13	0	0	0
Minnesota	20	45	1	0	1
Missouri	24	28	0	0	0
Montana	21	4	0	0	0
North Dakota	8	22	0	0	0
Nebraska	5	52	0	0	0
New Mexico	4	0	0	0	0
Ohio	119	11	16	6	13
South Dakota	16	8	0	0	0
Wisconsin	73	19	0	0	0
Wyoming	3	2	0	0	0
Total	622	359	28	6	17
Percentage	60.27	34.78	2.71	0.58	1.64

Table 106 shows the offerings in physical education. No pretense whatever of providing for this training is made by 760 schools, or 73.64 per cent; 189, or 18.31 per cent, offer the work to the extent of one unit; 59, or 5.71 per cent, give it for a total of two units; 8, or 0.77 per cent, offer three units' work, and 16, or 1.55 per cent, offer four units' work; that is, nearly three-fourths of all the accredited schools ignore the matter of systematic physical education, and most of the others give it scant attention In this respect all the States are nearly equally guilty, as no one of them shows by the reports that it has given the subject much serious consideration.

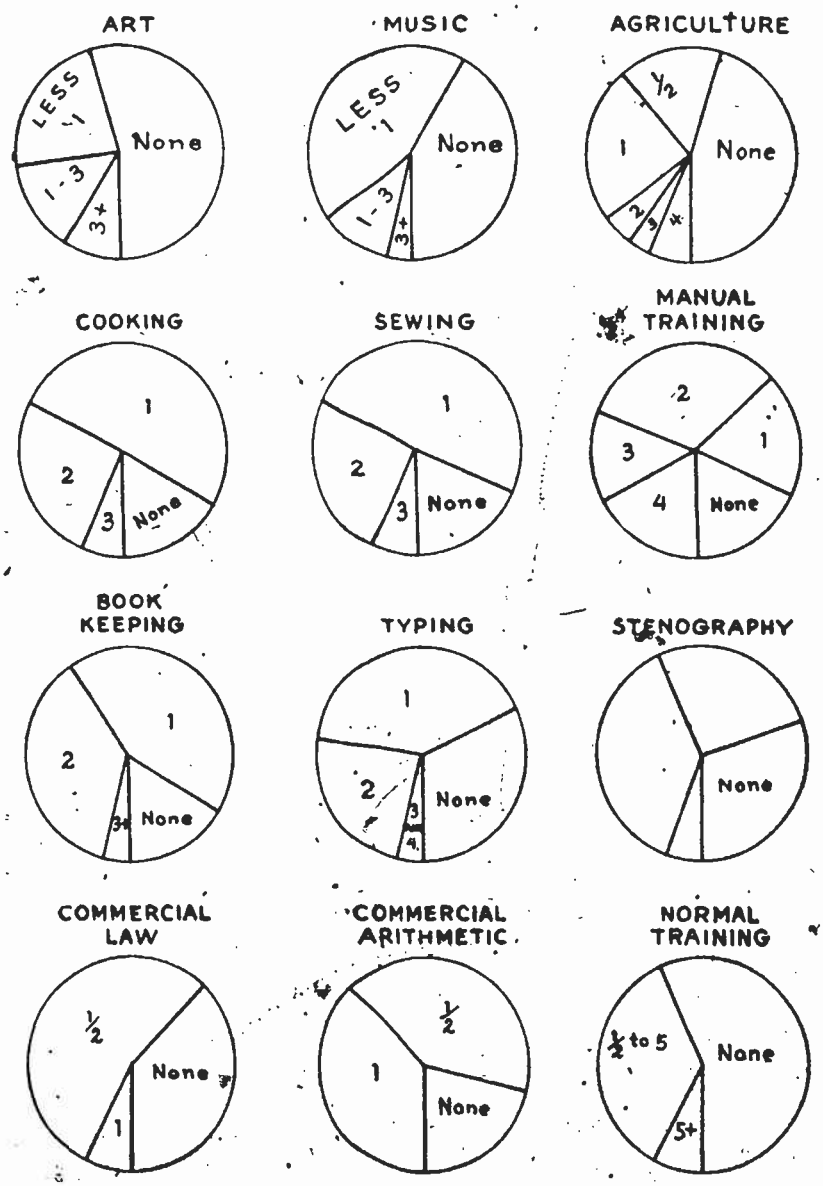


CHART XXVI.—Shows graphically the facts revealed in Tables 94-105, namely, the extent of the offerings of vocational subjects in the programs of study, in units.

TABLE 106.—*Offerings in physical education.*

State.	Number of schools offering—				
	None.	One unit.	Two units.	Three units.	Four units.
Arizona	4	2	0	0	0
Colorado	27	8	1	0	0
Illinois	80	42	7	1	5
Indiana	55	21	3	0	0
Iowa	55	14	5	1	1
Kansas	51	13	2	1	0
Michigan	86	16	7	1	2
Minnesota	49	15	3	0	0
Missouri	38	6	7	1	0
Montana	16	5	3	0	1
North Dakota	24	6	0	0	0
Nebraska	41	8	7	0	1
New Mexico	3	1	0	0	0
Ohio	139	12	9	1	4
South Dakota	18	4	2	0	0
Wisconsin	71	14	3	2	2
Wyoming	3	2	0	0	0
Total	760	189	59	8	16
Percentage	73.64	18.31	5.71	0.77	1.55

Table 107, which follows, shows that, except for Arizona, Indiana, New Mexico, and Wyoming, the number of academic units offered in the typical accredited school is about 22. The four States mentioned offer a considerably larger number of units. Likewise, except for Arizona and Minnesota, which have a relatively large number of vocational units, and except for New Mexico, Ohio, and South Dakota, which have a relatively small number of vocational units, the typical high school offers from 10 to 15 vocational units. Except, again, Arizona, Indiana, Minnesota, and Wyoming, all of which offer a relatively large number of units (academic and vocational), the typical high school provides an offering of about 30 to 37 units of work.

TABLE 107.—*Average number of units offered in the schools of the several States.*

State.	Academic units.	Vocational units.	Academic and vocational units combined.	State.	Academic units.	Vocational units.	Academic and vocational units combined.
Arizona	32	17	49	Montana	23	14	37
Colorado	24	10	34	Nebraska	19	10	29
Illinois	24	15	39	New Mexico	29	8	37
Indiana	29	12	41	North Dakota	20	10	30
Iowa	22	12	34	Ohio	23	9	32
Kansas	20	13	33	South Dakota	21	8	29
Michigan	23	12	35	Wisconsin	18	15	33
Minnesota	22	18	40	Wyoming	35	11	46
Missouri	24	13	37				

Range of academic units, 18 to 35.
Range of vocational units, 8 to 18.
Range of both academic and vocational units, 29 to 49.

TABLE 108.—*Vocational work offered in the public schools.*

State.	Number of accredited schools.	Number of schools offering— Art.	Music.	Agriculture.	Cooking.	Sewing.	Bookkeeping.
Arizona	6	6	6	2	6	6	6
Colorado	36	16	25	12	31	28	30
Illinois	135	82	89	51	117	116	117
Indiana	79	71	74	38	73	71	64
Iowa	76	17	40	70	73	65	66
Kansas	67	13	46	64	65	64	53
Michigan	112	55	79	48	78	82	102
Minnesota	67	31	47	47	66	62	59
Missouri	52	22	27	33	39	36	34
Montana	25	12	16	10	24	21	24
Nebraska	57	4	32	53	49	36	44
New Mexico	4	1	3	2	4	3	4
North Dakota	30	17	27	14	30	30	23
Ohio	165	66	87	111	107	94	117
South Dakota	24	8	14	16	17	17	15
Wisconsin	92	19	32	34	77	78	80
Wyoming	5	3	4	0	4	4	5
Total	1,032	443	646	605	860	813	843

State.	Number of schools offering— Stenography.	Typewriting.	Commercial arithmetic.	Commercial law.	Manual training.	Normal training.	Physical education.
Arizona	6	6	6	4	5	1	2
Colorado	27	28	30	15	28	9	9
Illinois	107	103	118	100	117	41	55
Indiana	55	51	73	37	67	2	24
Iowa	45	43	52	49	68	53	21
Kansas	47	51	45	38	65	63	16
Michigan	92	94	98	79	80	13	26
Minnesota	55	53	53	44	65	47	18
Missouri	31	32	23	19	39	28	[illegible]
Montana	23	22	25	18	20	4	[illegible]
Nebraska	34	32	33	25	43	52	[illegible]
New Mexico	3	3	4	3	4	0	[illegible]
North Dakota	17	18	17	15	29	22	6
Ohio	102	92	122	100	91	46	26
South Dakota	12	11	13	13	19	8	6
Wisconsin	74	70	80	50	66	19	21
Wyoming	5	5	4	4	3	2	2
Total	735	704	796	613	809	409	272

TABLE 109.—*Extent of offerings, in percentages, of all the vocational or nonacademic subjects.*

Subjects.	Number of schools offering— None.	One-half unit.	One unit.	Two units.	Three units.	Four units.	Less than one.	One to three.	More than three.
Art	58.13	.....	.....	.....	.....	.....	21.12	13.95	6.78
Music	37.20	.....	.....	.....	.....	.....	41.18	18.12	3.48
Agriculture	41.46	15.79	23.83	7.54	4.06	7.28	.....	.....	.....
Cooking	16.66	.....	52.13	25.58	5.62	.....	.....	.....	.....
Sewing	21.22	.....	48.54	24.41	5.81	.....	.....	.....	.....
Manual training	21.60	.....	20.25	34.69	8.43	15.01	.....	.....	.....
Bookkeeping	18.31	.....	41.81	35.85	3.48	.48	.....	.....	.....
Typewriting	21.78	.....	39.43	36.35	2.22	.02	.....	.....	.....
Stenography	25.77	.....	26.93	41.66	2.42	.02	.....	.....	.....
Commercial law	40.69	54.16	5.13	.....	.....	.....	.....	.....	.....
Commercial arithmetic	22.86	44.47	32.65	.....	.....	.....	.....	.....	.....
Normal training	50.27	[2] 34.78	.....	.....	.....	.....	.....	.....	.....
Physical education	73.64	.....	18.31	5.71	.77	1.55	.....	.....	.....

[1] Over 2 units.
[2] 24.78 per cent with ½ to 5 units; 3.71 per cent from 5 to 10; and 2.22 per cent over 10 units.

DIVISION E—MISCELLANEOUS ITEMS.

The tabulations presented in this division of the study were made from the data reported on the individual teacher cards. (See sample card on pp. 12-13.) This portion of the analyses was the most time consuming and, likewise, the most unsatisfactory of any of the work undertaken. The total number of teachers giving instruction in the North Central Association schools in 1916–17 was 20,090. Many of these, however, failed to fill out the individual report cards at all; others obviously did so in a hurried and, therefore, in a careless and inaccurate manner; and still others very evidently misunderstood the import of the questions asked and either gave only partial answers, or else vague or misleading replies.

Nevertheless, the cards of approximately 17,000 teachers were sufficiently acceptable to constitute the basis for computations; not every item on each card was, however, filled in by all these individuals: In consequence the totals in the several tables are not always the same. Nevertheless, the results presented are accurate, in so far as the individual report cards themselves can be accepted as accurate.

As in the other portions of this part of the study, the analyses were confined to the reports of teachers in the public schools.

ADVANCED DEGREES HELD BY TEACHERS.

Table 110 shows the academic training of the public-school teachers. The cards filled out by 16,934 persons were used for the analyses.[1]

In the 1,032 public secondary schools accredited by the association in 1917 are to be found 71 individuals holding the degree of doctor of philosophy and 1,668 persons possessing the degree of master of arts or master of science. In percentages, the figures are with Ph. D. degree, 0.41 per cent; with M. A. or M. S. degree, 9.85 per cent. That is, 10.26 per cent of the teachers hold collegiate degrees of higher grade than that of bachelor.

As would doubtless be expected, Illinois with its 46 large schools leads all the States in the number of teachers with advanced college degrees, with Ohio, Indiana, Missouri, and Michigan following in order. On a percentage basis, however, the ranking is decidedly different. Here Wyoming with only 11 teachers reporting shows 18.1 per cent with higher degrees, and New Mexico, with 36 teachers reporting, shows 16.4 per cent with higher degrees. Then follow Missouri, Colorado, Ohio, and Illinois in order. Considered on the basis of sex, 57 men and 14 women hold the degree of Ph. D., and 874 men and 794 women the degree of M. A. and M. S.

[1] In this division of the study no attempt is made to segregate new teachers from those not new, or academic teachers from the vocational teachers. The figures ought not, therefore, to be compared with those presented in other parts of the study in which segregation is followed.

The number of teachers with the bachelor's degree is 11,687, or 69.01 per cent of the total number reporting. Or, stated conversely, 30.80 per cent of those reporting do not hold a bachelor's degree. This percentage is slightly different from the figures given in Division A of this study, and is due to the difference in the number of teachers reporting. There is no great inconsistency in the two sets of findings.

The conditions in the several States are likewise not notably at variance. The percentages of teachers with collegiate degrees range from 60.6 per cent in Wisconsin to 79.2 per cent in South Dakota.

The figures in all the tables here presented include the data respecting old teachers as well as new, and vocational teachers as well as teachers of strictly academic work. Moreover, the fact should be kept in mind that the association never has established the ideal of college graduation as a standard requirement either for teachers of vocational subjects or for academic teachers who were already employed in the given school system when the school was first accredited.

TABLE 110.—*Academic training of teachers.*

State.	Number of teachers reporting.	Number with Ph. D. degree.	Number with M. A. or M. S. degree.	Per cent with higher degree.	Number with bachelors' degree.	Per cent with college degree.
Arizona[1]						
Colorado	599	1	79	13.3	436	72.8
Illinois	3,033	24	337	11.9	1,960	64.9
Indiana	1,527	6	161	10.9	1,002	65.6
Iowa	1,244	1	77	6.2	934	75.1
Kansas	1,022	1	90	8.9	744	73.7
Michigan	1,818	4	129	7.3	1,167	64.2
Minnesota	1,088	2	97	9.0	758	69.6
Missouri	1,138	12	145	13.8	756	66.4
Montana	343	0	44	12.8	245	71.4
Nebraska	549	2	61	11.4	485	88.3
New Mexico	36	2	4	16.4	25	66.4
North Dakota	307	1	21	7.1	228	74.2
Ohio	2,544	15	302	12.5	1,882	73.9
South Dakota	275	0	25	9.1	218	79.2
Wisconsin	1,400	0	94	6.7	849	60.6
Wyoming	11	0	2	18.1	8	72.7
Total	16,934	71	1,668		11,687	
Percentage		0.41	9.8	10.26	69.01	969.01

[1] No reports.

EXTENT OF PROFESSIONAL TRAINING OF TEACHERS.

Table 111 shows the professional training of teachers. Here again the number reporting is 16,934, and includes both academic and vocational teachers. Of this number, 4,323, or 25.52 per cent, received their professional training in both normal schools and in departments or schools of education in colleges and universities; 4,529, or 26.74 per cent, have no credit hours whatever in education and may fairly be assumed to be entirely without systematic institutional training in the science and art of teaching; 1,905, or 11.24 per cent,

have had some professional training but less than the amount standardized as 11 semester hours; while 10,500, or 62 per cent, have 11 or more hours' credit in education. That is, 73.24 per cent of all the teachers reporting, academic and vocational, have had professional training of some kind and to some extent.

TABLE 111.—*Professional training of teachers.*

State.	Number of teachers reporting.	Number trained in both normal school and college.	Number without credit in education.	Number with some credit in education but less than 11 hours.	Number with 11 or more hours credit in education.
Arizona [1]					
Colorado	599	144	121	98	380
Illinois	3,033	800	876	571	1,586
Indiana	1,527	572	393	167	967
Iowa	1,244	282	338	103	803
Kansas	1,022	244	166	70	786
Michigan	1,818	505	534	162	1,122
Minnesota	1,088	179	299	131	658
Missouri	1,138	316	382	122	634
Montana	343	98	72	33	238
Nebraska	549	149	78	29	442
New Mexico	36	14	6	0	30
North Dakota	307	85	37	25	245
Ohio	2,544	475	916	240	1,388
South Dakota	275	67	40	21	214
Wisconsin	1,400	391	270	132	998
Wyoming	11	2	1	1	9
Total	16,934	4,323	4,529	1,905	10,500
Percentage		25.52	26.74	11.24	62.00

[1] No reports.

CORRESPONDENCE OF PREPARATION AND SUBJECTS TAUGHT.

Table 112 shows the extent to which there is correspondence between the subjects which teachers prepared themselves especially to teach and the subjects which they are actually teaching. Of the 16,934 persons whose cards were analyzed, 13,499, or 79.71 per cent, were teaching their academic specialties; 1,911, or 11.28 per cent, were not teaching solely (if at all) their academic specialties; and the others, 1,524 persons, did not reply to the question. It is a commonplace statement to say that teachers can not teach what they themselves do not know, and it is reasonable to assume that they do not know, in the manner which the ideal demands that they should know, unless they have made the subject they teach a part of their specialized work in college or normal school. When, therefore, only approximately four-fifths of the teachers are teaching the subjects which they prepared themselves to teach, or, put otherwise, when approximately one-tenth or more are teaching subjects which they positively did not prepare themselves to teach, a large source of weakness, ineffectiveness, and possibly personal hardship is introduced into the school system. It is a fair question to raise whether

the association ought not to make correspondence of the teachers' training and of the work the teacher is called upon to do a positive standard for future enforcement.

TABLE 112.—*Correspondence of subjects of academic specializations and of classroom teaching.*

State.	Number of teachers reporting.	Number teaching academic specialty.	Number not teaching academic specialty (entirely).
Arizona[1]			
Colorado	599	469	95
Illinois	3,033	2,460	349
Indiana	1,527	1,253	162
Iowa	1,244	974	199
Kansas	1,022	894	93
Michigan	1,818	1,388	186
Missouri	1,138	902	108
Minnesota	1,088	946	82
Montana	343	290	27
Nebraska	549	414	61
New Mexico	36	31	3
North Dakota	307	261	42
Ohio	2,544	1,862	333
Oklahoma[1]			
South Dakota	275	234	27
Wisconsin	1,400	1,114	144
Wyoming	11	10	0
Total	16,934	13,499	1,911
Percentage		79.71	11.28

[1] No report.

DISTRIBUTION OF TEACHING INTERESTS.

Table 113 shows the number of departmentally different subjects taught by teachers each day. Only 16,481 persons made reports on this specific item. Hence the percentages given are based on that number. Of all the teachers reporting, 78.89 per cent were teaching only a single departmental subject or branch; 17.36 per cent were teaching two distinct subjects; 3.26 per cent were teaching three distinct subjects; 0.43 per cent were teaching four distinct subjects; and but the merest fraction of 1 per cent were teaching more than four subjects. These figures surely show that teachers in the North Central Association schools are not required or allowed to disperse their efforts over many diverse fields. Indeed, it may be questioned whether there is sufficient dispersion or variety of work. Concentration no doubt tends to mastery of content and method, but it may likewise tend toward an abridgment of the power of making effective intercorrelations.

TABLE 113.—*Number of departmentally different subjects taught by teachers daily.*

State.	One department subject.	Two department subjects.	Three department subjects.	Four department subjects.	Five or more department subjects.
Arizona [1]					
Colorado	448	134	17	0	0
Illinois	2,213	640	124	13	0
Indiana	1,211	246	28	2	1
Iowa	839	332	53	2	0
Kansas	1,001	4	0	0	0
Michigan	1,495	281	40	2	0
Missouri	1,064	2	0	0	0
Minnesota	818	176	34	6	0
Montana	228	94	18	1	0
Nebraska	273	180	73	20	3
New Mexico	19	15	2	0	0
North Dakota	145	98	18	2	2
Ohio	1,721	592	115	21	0
South Dakota	158	65	18	3	0
Wisconsin	1,362	2	0	0	0
Wyoming	8	1	0	0	0
Total	13,003	2,862	538	72	6
Percentage [2]	78.89	17.36	3.26	0.43	0.003

[1] No report.
[2] The per cent was figured on the *number* reporting, 16,481.

PART III.—NONPUBLIC SCHOOLS.[1]

In the study of the nonpublic schools the threefold classification used in the public schools is not maintained, but the schools are divided into four types according to the general character of the schools. These four types are: Private high schools, military high schools, preparatory high schools, and parochial high schools. High schools attached to higher institutions of learning are classed as preparatory schools.

Table 114 shows that there are 87 nonpublic schools accredited by the association. Of these, 27 are private schools, 6 are military, 47 are preparatory, and 5 are parochial. That is, the number of accredited nonpublic schools is only one-twelfth the number of the accredited public schools. Chart XXXVII shows the distribution of the nonpublic schools by types.

Nearly one-third of the accredited nonpublic schools are located in Illinois, and, with one exception, these are either preparatory or private; Missouri and Ohio have, respectively, 11 and 10 accredited nonpublic schools; Michigan, Nebraska, and Wisconsin have four schools each; while four States, Arizona, New Mexico, Montana, and Wyoming, have no such schools accredited. Chart XXXVIII shows the distribution of the nonpublic schools by States.

TABLE 114.—*Number and types of nonpublic schools.*

State.	Private.	Military.	Preparatory.	Parochial.	Total.
Arizona	0	0	0	0	0
Colorado	1	0	0	0	1
Illinois	11	1	15	0	27
Indiana	1	2	1	0	4
Iowa	0	0	2	0	2
Kansas	0	0	5	1	6
Michigan	3	0	3	1	7
Minnesota	2	0	0	0	2
Missouri	3	1	7	0	11
Montana	0	0	0	0	0
North Dakota	0	0	2	0	2
Nebraska	1	0	5	1	7
New Mexico	0	0	0	0	0
Ohio	5	0	5	0	10
South Dakota	0	0	0	1	1
Wisconsin	2	2	2	1	7
Wyoming	0	0	0	0	0
Total	29	6	47	5	87

[1] The tables and charts of Part III are chiefly the work of William J. Baumgartner.

PUPILS.

Table 115 shows that the nonpublic schools enroll 12,355 pupils, of whom 60.25 per cent, or 7,472, are boys and 39.75 per cent, or 4,889, are girls. In the preparatory schools the boys exceed the girls, and in parochial and private schools the girls exceed the boys. The average military school enrolls 221 pupils; the average preparatory school enrolls 96 girls and 46 boys, or 143 pupils; the average private school enrolls 53 boys and 85 girls, or 138 pupils; and the average parochial school enrolls 14 boys and 48 girls, or 62 pupils. If the standards for making the threefold division of the public schools were applied to

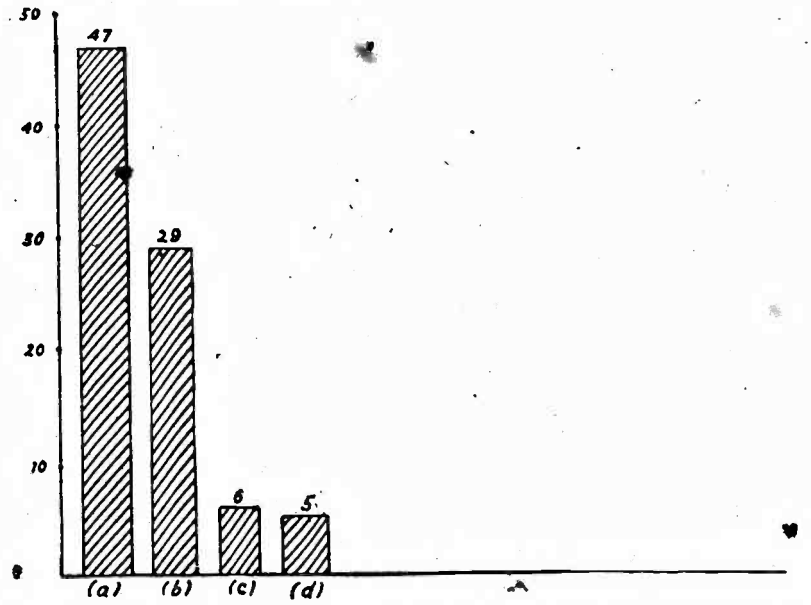


CHART XXXVII.—Number and types of nonpublic schools: (a) preparatory; (b) private; (c) military; (d) parochial.

the nonpublic schools, the private, preparatory, and parochial schools would fall into the class of the small high schools, and the military schools into the class of the medium-sized schools. The total enrollment of the nonpublic schools is less than 1 per cent of the enrollment of the freshman or first-year class in the public schools. The fact that the military schools enroll only boys would increase the percentage of enrollment for boys, but exclusive of these schools the enrollment for boys still exceeds the enrollment for girls by 13.2 per cent, the percentages being, for boys 56.6 per cent, for girls 43.4 per cent.

TABLE 115.—*Total enrollment, by States, for each type of nonpublic school.*

States.	Private.	Military.	Preparatory.	Parochial.	Total.
Colorado	638	0	0	0	638
Illinois	1,070	219	2,440	0	3,729
Indiana	12	632	228	0	872
Iowa	0	0	240	0	240
Kansas	0	0	582	35	617
Michigan	1,017	0	743	50	1,810
Minnesota	230	0	0	0	230
Missouri	280	153	358	0	791
North Dakota	0	0	203	0	203
Nebraska	59	0	627	73	759
Ohio	453	0	940	0	1,393
South Dakota	0	0	0	68	68
Wisconsin	253	319	347	86	1,005
Total	4,012	1,323	6,708	312	12,355
Average per school	138	221	143	62	142

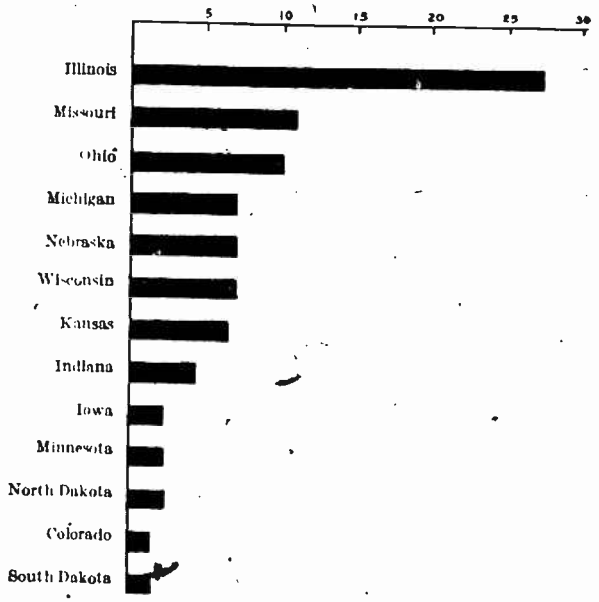


CHART XXXVIII.—Distribution of nonpublic schools, by States.

TABLE 116.—*Enrollment in the different types of nonpublic schools, by classes.*

Types of school.	Fourth year.	Third year.	Second year.	First year.
Private	710	874	838	846
Military	286	346	265	315
Preparatory[1]	461	1,554	1,630	1,904
Parochial	79	87	80	66
Total	[2] 2,536	2,861	2,813	[1] 3,131
Average	29	33	32	36
Percentage	22.4	25.2	24.7	27.7

[1] Special and irregular students are not included.

Table 116 shows the distribution of pupils among the four years or classes of nonpublic high schools. Expressed in percentages, they are: 22.4 per cent of the enrollment of the nonpublic school pupils are in the fourth year, 25.2 per cent in the third year, 24.7 per cent in the second year, and 27.7 per cent in the first year. Compared with the public-school enrollment, the distribution is less marked. The difference in the percentages of enrollment of the first and fourth years of the nonpublic schools is but 5.3, while for the public school there is a loss of 22.9 per cent from the first to the fourth year.

In the year 1916 the nonpublic schools graduated 2,535 pupils. Of these, 59.9 per cent were boys and 40.1 per cent were girls. These percentages are almost exactly the reverse of the percentages for the public schools, where the figures are: Boys graduating, 41.9 per cent; girls graduating, 58.1 per cent. Moreover, of those thus graduating, 1,460, or 57.6 per cent, entered institutions of higher learning the succeeding autumn, whereas among the graduates of the public schools of the same year only 38.1 per cent continued their systematic school work immediately. In the nonpublic schools the number of pupils graduating in 1916 was 20.4 per cent of the entire enrollment, while in the public schools the number of pupils graduating this same year was but 13.9 per cent of the total enrollment.

TABLE 117.—*Number of graduates in 1916 and number of these graduates attending institutions of higher learning in the fall of 1916.*

Types of school.	Boys graduating.	Girls graduating.	Total graduating.	Number entering college.
Private	368	471	840	433
Military	198	0	198	94
Preparatory	944	489	1,433	900
Parochial	12	53	65	33
Total	1,522	1,013	2,535	1,460
Average	17	12	29	17
Percentage	59.9	40.1		57.6

TEACHERS.

Table 118 reveals the fact that the total number of teachers in the 87 nonpublic schools is 1,175, or an average of 13.5 teachers per school. The typical public school employs 17.6 teachers. More than one-half of the teachers of the nonpublic schools are employed in the preparatory schools; one-third are in the private schools, while the military and parochial schools employ but 12.2 per cent of the total number. As to sex, the men exceed the women; but if the teachers of the military schools are excluded, then the percentages are 50 per cent for men and 50 per cent for women. Whether the teachers of the military schools are excluded or not, the fa

remains that the nonpublic schools employ a larger percentage of men than do the public schools, the figures being: Public schools, men, 38.25 per cent; nonpublic schools (including military schools), men, 54.3 per cent; excluding military schools, 50 per cent.

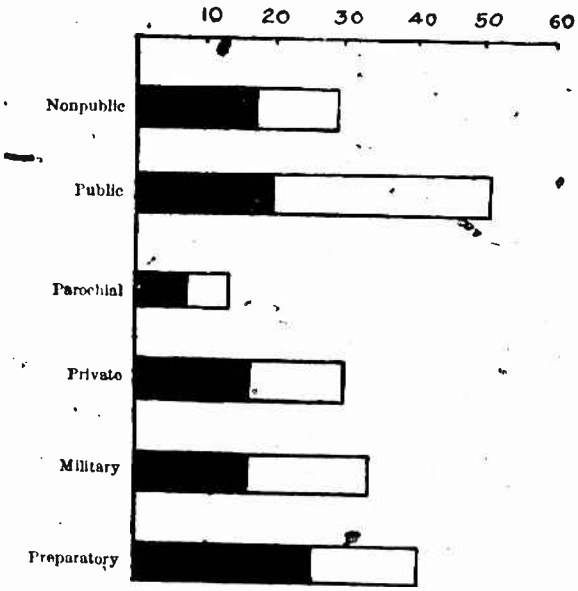


CHART XXXIX.—Average number of graduates per school in 1918 and average number per school immediately entering college. Entire areas—the number graduating; dark portions indicate the numbers going to college.

TABLE 118.—*Number of teachers employed in the various types of nonpublic schools, with averages for each type of school.*

State.	Men.	Women.	Total.	Average per school.	Teachers.			
					In private schools.	In military schools.	In preparatory schools.	In parochial schools.
Colorado	11	11	25	25	25	0	0	0
Illinois	209	180	389	14	156	11	222	0
Indiana	74	12	86	19	12	53	21	0
Iowa	4	15	19	9	0	0	19	0
Kansas	36	30	66	11	0	0	61	5
Michigan	52	33	85	12	34	0	46	5
Minnesota	4	23	27	13	27	0	0	0
Missouri	39	77	116	10	31	15	70	0
Nebraska	44	35	79	11	13	0	61	5
North Dakota	20	10	30	15	0	0	30	0
Ohio	91	47	138	14	64	0	74	0
South Dakota	2	10	12	12	0	0	0	12
Wisconsin	52	51	103	15	30	21	36	16
Total	638	537	1,175	13.5	392	100	640	43
Average per school					13.4	16.6	13.6	8.6
Percentage	54.3	45.7			33.3	8.5	54.5	3.7

ACADEMIC AND VOCATIONAL TEACHERS.

Table 119 shows that the typical private school employs 9.3 academic teachers and 4.2 vocational teachers; the typical military school employs 13.1 academic teachers and 3.5 vocational teachers; the typical preparatory school enploys 10.5 academic teachers and 3.2 vocational teachers; and the typical parochial school employs 5.8 academic teachers and 2.8 vocational teachers. The typical nonpublic school, therefore, employs 10 academic teachers and 3.5 voca-

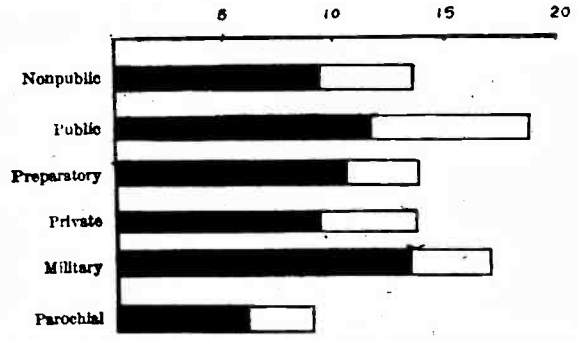


CHART XL.—Average number of teachers per school. Dark portions indicate academic teachers; outlined portions indicate vocational teachers.

CHART XLI.—Average number of teachers, by sexes, in the nonpublic and public schools. Dark portions indicate men; outlined portions indicate women.

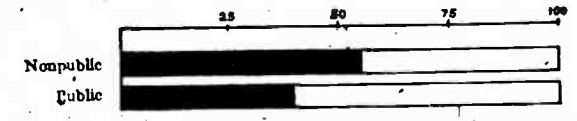


CHART XLII.—Percentages of men and women teachers in the nonpublic and public schools. Dark portions indicate men; outlined portions indicate women.

tional teachers. The typical public school employs 12 academic teachers and 5.6 vocational teachers.

By comparing these figures with the enrollment figures of the several types of schools, the further fact is brought out that in the public schools there is, on the average, one teacher to every 20.8 pupils, whereas in the nonpublic schools there is one teacher for every group of 10.5 pupils. Within the group of nonpublic schools themselves the military and parochial schools show interesting departures from the nonpublic-school's norm, since the typical military school

employs one teacher for every 13 pupils and the typical parochial school one teacher for every 7 pupils.

TABLE 119.—*Number of academic and vocational teachers in various types of nonpublic schools.*

State.	Private.		Military.		Preparatory.		Parochial.		Total.		Grand total.
	Academic.	Vocational.	Academic.	Vocational.	Academic.	Vocational.	Academic.	Vocational.	Academic.	Vocational.	
Colorado	18	7	0	0	0	0	0	0	18	7	25
Illinois	105	51	10	1	164	58	0	0	279	110	389
Indiana	7	5	38	15	19	2	0	0	64	22	86
Iowa	0	0	0	0	15	4	0	0	15	4	19
Kansas	0	0	0	0	49	12	5	0	54	12	66
Michigan	19	15	0	0	40	6	3	2	62	23	85
Minnesota	21	6	0	0	0	0	0	0	21	6	27
Missouri	25	6	12	3	50	20	0	0	89	27	116
North Dakota	0	0	0	0	18	12	0	0	18	12	30
Nebraska	8	5	0	0	55	6	4	1	67	12	79
Ohio	47	17	0	0	57	17	0	0	104	34	138
South Dakota	0	0	0	0	0	0	7	5	7	5	12
Wisconsin	20	10	19	2	25	11	10	6	74	29	103
Total	270	122	79	21	492	148	29	14	872	303	1,175
Average per school	9.3	4.2	13.1	3.5	10.5	3.2	5.8	2.8	10.0	3.5	13.1

Percentages: Vocational teachers, 25.8 per cent; academic teachers, 74.2 per cent.

Of the total number of teachers in the nonpublic schools, 872, or 74.2 per cent, are academic teachers, and 303, or 25.8 per cent, are

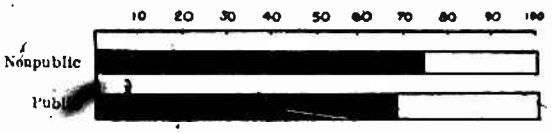


CHART XLIII.—Percentages of academic and vocational teachers in the nonpublic and public schools. Dark portions indicate academic teachers; outlined portions indicate vocational teachers.

vocational, while for the public schools the percentages are 67.36 per cent for academic teachers and 32.64 per cent for vocational. The highest percentage of vocational teachers is found in the parochial schools, and the largest percentage of academic teachers are in the military schools. The percentage of academic teachers for the private, military, preparatory, and parochial schools are, respectively, 68.8, 79.1, 76.8, and 65.1 per cent. In every case except the parochial schools, they exceed the percentage of academic teachers for the public schools.

NEW TEACHERS.

Of the total number of teachers of the nonpublic schools, 290, or 24.7 per cent, were new to the system in 1916. Of these, 203, or 70 per cent, were academic teachers, and 87, or 30 per cent, were vocational teachers. These percentages are slightly below those for the

public schools. Speaking in terms of the average number of new teachers per school, the nonpublic schools have 3.3 new teachers per school; the public, 4.5 new teachers per school. It is evident from a comparison of the tables of new teachers for the nonpublic and public schools that the shifting of teachers each year is practically the same, but that the shift is greater among the teachers of academic subjects in the nonpublic schools.

The number of *new* academic teachers without college degrees is very small, being but 5.3 per cent of the total number of new academic teachers and only 1.2 per cent of the entire corps of academic teachers. These percentages differ but slightly from those for the public schools. The per cent of academic teachers without any previous teaching is greater for the public schools, than for the non-

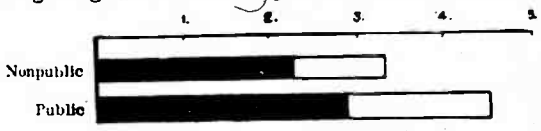


CHART XLIV.—Average number of new teachers per school. Dark portions indicate men; outlined portions indicate women.

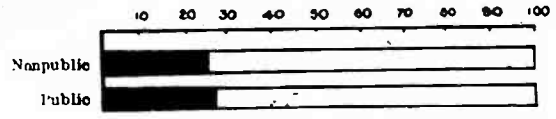


CHART XLV.—Percentage of annual shiftings of teachers. Dark portions indicate percentage of new teachers; outlined portions indicate percentage of not new teachers.

public schools, a fact which would indicate that the public schools are recruiting more new teachers than the nonpublic schools. On the other hand, the nonpublic schools are employing more new teachers without 11 hours of professional study than are the public schools, 21.6 per cent of the new academic teachers not having had 11 hours of professional study, while for the public schools the percentage is but 12.3 per cent.

More than half (52.4 per cent) of the vocational teachers of the nonpublic schools are college graduates, while only 40.1 per cent of the vocational teachers of the public schools are college graduates. The subjects they teach, named in order of instances, are industrial subjects, art, science, physical education, and commercial subjects. For the public schools the industrial and commercial subjects lead.

TABLE 120.—*Training and experience of academic teachers.*

State.	Without college degree.		Without 11 hours of professional study.		Without previous teaching experience.
	New.	Old.	New.	Old.	
Colorado	0	0	1	5	0
Illinois	2	14	11	82	11
Indiana	0	4	0	11	6
Iowa	1	0	1	0	1
Kansas	0	3	0	11	0
Michigan	0	7	7	5	1
Missouri	1	7	8	32	7
Nebraska	2	0	1	21	1
North Dakota	0	0	0	11	0
Ohio	0	3	2	5	4
South Dakota	0	2	2	6	1
Wisconsin	5	3	11	22	4
Total	11	43	44	211	36
Percentage	5.3		21.6		17.2

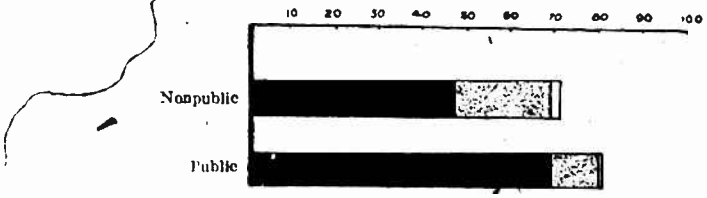


CHART XLVI.—Academic training of teachers. Dark portions indicate percentage holding bachelor's degrees; dotted portion, master's degrees; outlined portions, doctor's degrees.

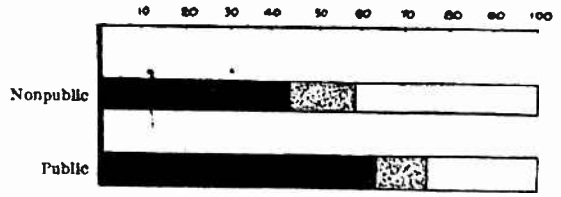


CHART XLVII.—Professional training of teachers. Dark portions indicate percentage having 11 hours or more; dotted portions, less than 11 hours; outlined portions, none.

The preceding tables show that the nonpublic schools have 4.3 per cent of their academic teachers who teach more than the number of periods per week approved by the North Central Association; nevertheless, in this respect, the violations of standards by the nonpublic schools are somewhat less than that of the public schools, which have 9.25 per cent of their academic teachers teaching more than 35 periods per week.

The nonpublic schools likewise have a total of 103 classes, which are oversize. Of these, 77 are found in the preparatory schools, 25 in the private schools, 1 in the military schools, and none in the parochial schools.

EXPERIENCE OF TEACHERS.

More than one-half of the nonpublic school teachers have had more than 6 years' experience, and over 25 per cent have had over 15 years' experience. The private schools lead in the percentage of most experienced teachers, having 67.1 per cent of them with over 6 years' experience, and nearly half of them with more than 15 years' experience. The percentages of teachers with no experience, and with 1 to 3 years' experience, differ but slightly from those for the public schools. Chart XLVIII shows the percentages of experienced teachers in the various nonpublic schools.

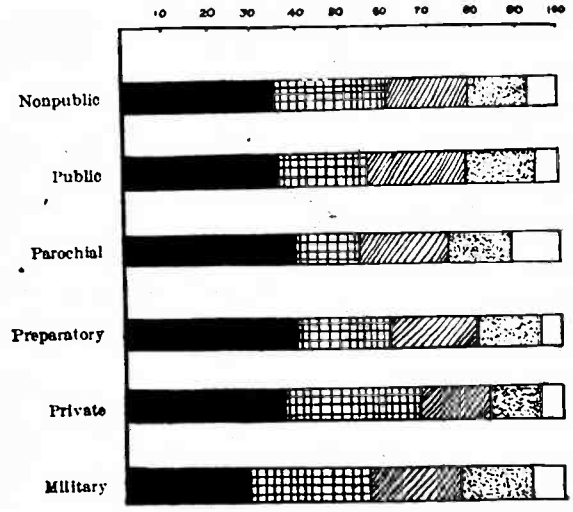


CHART XLVIII.—Experience of teachers. Dark portions indicate percentage with 6 years but less than 15 years; checkered portions, 15 or more years; shaded portions, from 3 to 6 years; dotted portions, less than 3 years; outlined portions, none.

TABLE 121.—*Summary of facts respecting the teaching experience of teachers.*

Classes of schools.	Per cent without previous experience.	Per cent with less than 3 years' experience.	Per cent with 3 but less than 6 years' experience.	Per cent with 6 but less than 15 years' experience.	Per cent with more than 15 years' experience.
Private schools	4.8	11.9	16.2	36.5	30.6
Military schools	7.2	16.6	19.6	28.8	27.8
Preparatory schools	4.7	13.9	20.1	38.3	22.9
Parochial schools	11.6	13.9	20.9	39.5	13.9
All nonpublic schools	5.3	13.5	18.8	36.8	25.5
All public schools	4.9	15.4	23.3	36.6	19.8

SALARIES.

The nonpublic schools have the largest per cent of high-salaried teachers, but as Table 121 shows that they have had on an average more years of experience in teaching, this fact is not surprising,

since increase in salary and number of years' experience in teaching usually correlate highly. More than half of the nonpublic-school teachers are receiving more than $1,200, and about one-third of these receive over $1,800. Among the vocational teachers of the nonpublic schools the salaries are much lower than those of the academic teachers. A larger per cent of vocational teachers are receiving salaries under $675 than is true of the academic teachers; while a smaller per cent are receiving $1,800 salaries. This is also true for the public schools.

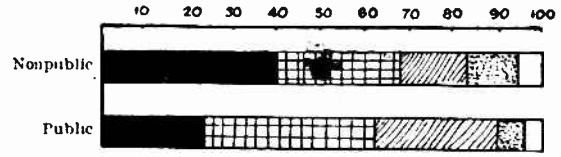


CHART XLIX. Salaries of academic teachers (in percentages). Dark portions indicate salary of $1,200 to $1,799; checkered portions indicate salary of $900 to $1,199; shaded portions indicate salary of $675 to $899; dotted portions indicate salary over $1,800; outlined portions indicate salary under $675.

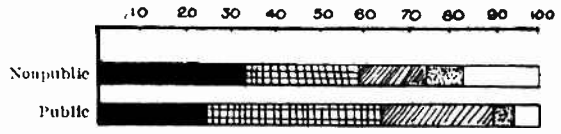


CHART L.—Salaries of vocational teachers (in percentages). Divisions as in Chart XLIX.

TABLE 122.—*Summary of facts respecting the salaries of academic and vocational teachers.*

Classes of teachers.	Per cent with salary less than $675.	Per cent with salary $675 to $899.	Per cent with salary $900 to $1,199.	Per cent with salary $1,200 to $1,799.	Per cent with salary over $1,800.
ACADEMIC.					
Private	4.1	15.7	33.8	32.4	13.9
Military	.0	1.3	28.0	53.3	17.3
Preparatory	7.3	18.5	23.8	42.0	8.3
Parochial	9.5	47.6	38.1	4.7	.0
All nonpublic combined	5.8	16.7	27.3	39.2	11.0
Public schools	4.4	27.2	39.3	22.7	6.4
VOCATIONAL.					
Private	17.5	11.4	27.1	27.7	6.1
Military	5.6	11.8	11.8	29.4	41.1
Preparatory	21.9	18.3	24.7	29.2	4.9
Parochial	28.5	28.5	28.5	14.5	.0
All nonpublic combined	18.6	14.5	25.4	33.1	8.2
Public schools	6.7	25.3	38.8	24.0	5.2

ACADEMIC TRAINING.

Tables 123–126 were compiled from the individual teacher cards. However, all the teachers were not represented, and in interpreting the percentages given, one must bear in mind that they are based on

the actual number of teachers reporting. Of the total number of teachers, 76.2 per cent reported.

Of the teachers of the nonpublic schools, 70.4 per cent hold college degrees; 46 per cent of the entire number who reported hold bachelor's degrees; 22.6 per cent hold master's degrees; and 1.7 per cent hold doctor's degrees. A larger percentage of teachers in the nonpublic schools hold masters' or doctor's degrees than is true of the public schools, but fewer hold bachelor's degrees. Of the teachers in the nonpublic schools, 30 per cent are without college degrees, while only 20 per cent are without college degrees in the public schools. As to the per cent of teachers with both college and normal training, the numbers differ but slightly for the two systems of schools, about one-fourth of the teachers in both cases having had both kinds of training.

TABLE 123.—*Academic training of teachers in nonpublic schools.*[1]

States.	Schools reporting.	Teachers reporting.	Number with Ph. D. degree.		Number with M. A. or M. S. degree.		Number with bachelor's degree.		Total with bachelor or higher degree.		
			Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Total.
Colorado	1	25	1	0	1	3	4	9	6	12	18
Illinois	27	389	6	3	58	30	83	86	147	119	266
Iowa	2	19	0	0	0	4	3	10	3	14	17
Kansas	6	66	0	0	11	7	13	16	24	23	47
Michigan	6	31	0	0	3	2	8	5	11	7	18
Minnesota	2	25	0	0	1	7	3	8	4	15	19
Missouri	11	116	0	0	10	11	20	46	30	57	87
Nebraska	5	58	0	1	5	14	13	12	18	27	45
North Dakota	2	30	0	0	9	1	8	7	17	8	25
Ohio	8	76	2	0	13	3	27	4	42	7	49
South Dakota	1	12	0	1	0	2	0	6	0	9	9
Wisconsin	5	57	2	0	3	7	13	12	18	19	37
Total	76	904	11	5	114	91	195	221	320	317	637
Percentage			1.77		22.6		46.0				70.4

[1] Indiana reports are missing and two schools each from Nebraska, Ohio and Wisconsin, and one from Michigan did not report.

PROFESSIONAL TRAINING.

Table 124 shows the professional training of teachers. It is evident that the public-school teachers are better trained professionally than are the teachers of the nonpublic schools.

Table 125 shows that the teachers of the nonpublic schools are, for the most part, teaching the subjects in which they specialized at college. But 10.7 per cent fail in this respect. In the public schools, 79.71 per cent only are teaching their academic specialty.

Whether teachers, as a rule, teach several subjects in the nonpublic schools is told by Table 126. Here it is seen that 82.6 per cent teach but one subject, 12.3 per cent teach two subjects, and only 5.2 per cent teach more than three subjects.

TABLE 124.—*Professional training of all teachers in nonpublic schools, academic and vocational.*[1]

State.	Teachers reporting.	Number trained in both normal school and college.	Number without credit in education.	Number with less than 11 hours in education.	Number with 11 hours or more in education.
Colorado	24	8	5	3	16
Illinois	383	78	194	71	118
Iowa	19	9	6	0	13
Kansas	54	16	21	6	27
Michigan	31	10	16	2	13
Minnesota	23	3	2	2	19
Missouri	110	31	55	12	43
Nebraska	58	26	8	6	44
North Dakota	30	10	10	3	17
Ohio	96	30	37	15	34
South Dakota	12	2	7	3	2
Wisconsin	57	10	20	8	29
Total	887	233	381	131	375
Percentage	.....	26.3	42.9	14.8	42.3

[1] Indiana report missing, as well as one or two schools from Nebraska, Ohio, Wisconsin, and Michigan.

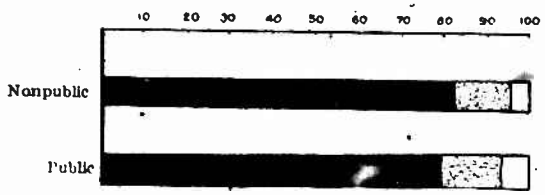


CHART LI.—Departmentally different subjects taught by teachers daily. Dark portions indicate percentage teaching one subject; dotted portions, two subjects; outlined portions, three or more subjects.

TABLE 125.—*Correspondence of subjects of academic specializations and of classroom teaching.*[1]

State.	Number of teachers reporting.	Number teaching academic specialties.	Number not teaching academic specialties.
Colorado	23	20	3
Illinois	333	283	50
Iowa	19	17	2
Kansas	53	51	2
Michigan	29	27	2
Minnesota	23	23	0
Missouri	108	100	8
Nebraska	53	52	1
North Dakota	30	28	2
Ohio	63	51	12
South Dakota	12	12	0
Wisconsin	50	47	3
Total	796	711	85
Percentage	.....	89.3	10.7

[1] See footnote to Table 124.

TABLE 126.—*Number of departmentally different subjects taught by teachers daily.*[1]

State.	One subject.	Two subjects.	Three or more subjects.	State.	One subject.	Two subjects.	Three or more subjects.
Colorado	19	5	0	Nebraska	22	19	17
Illinois	307	43	2	Ohio	32	20	14
Iowa	14	2	1	South Dakota	12	0	0
Kansas	53	1	1	Wisconsin	55	1	0
Michigan	21	6	1	Total	688	102	43
Minnesota	15	2	6	Percentage[2]	82.6	12.3	5.2
Missouri	110	0	0				
North Dakota	25	3	1				

[1] See footnote to Table 124. [2] Percentages based on number reporting.

LIBRARIES.

Table 127 gives the data respecting libraries in nonpublic schools. These schools have an average of 7,075 volumes per school, and spend annually $548 to maintain each library. The public schools have but 2,394 volumes per school, and spend annually only $221.43 for maintenance.

TABLE 127.—*Number of volumes in the libraries and annual expenditures for library books.*

Types of school.	Number of schools.	Volumes in libraries.	Annual expenditures.	Average number volumes per school.	Average expenditures per year.
Private schools	29	82,121	$8,665	2,833	$309
Preparatory schools	47	496,625	37,181	10,566	791
Military schools	6	14,550	950	2,425	158
Parochial schools	5	22,227	950	4,445	320
Total	87	615,523	47,746	7,075	549

VALUE OF EQUIPMENT.

Table 128 gives the value of the material equipment of various sorts. The comparisons are based on the average value per school.

In physics, chemistry, biology, and manual training the average value of equipments per school is $1,348, $1,102, $1,109, and $885, respectively, as compared with $1,099, $808, $448, and $2,829 for the public schools. Except in manual training, the equipment is more elaborate in the nonpublic schools. Apparently the nonpublic schools are not stressing manual training.

In cooking and sewing the average value of equipment is $462 and $155, respectively, as compared with $668 and $306 for the public schools. The military schools are excluded because they do not teach this work. With respect to cooking and sewing, the public schools have proportionately better equipments.

The same holds true when comparing the average value of equipments in commerce and maps and charts, the figures being $448

and $125, respectively, for the nonpublic schools and $792 and $162 for the public schools.

In physical geography the average value of equipment is nearly the same for the nonpublic and public schools. As for agriculture, evidently the subject has not yet found its way extensively into the nonpublic schools, for very little data concerning it were found in the reports.

With respect to data concerning the value of gymnasiums and playgrounds, startling facts are revealed. The nonpublic schools have an average value of $25,224 per school for gymnasiums and playgrounds, against $6,426 for the public schools. The total value of gymnasiums and playgrounds in the nonpublic schools is $1,942,225, the military schools having gymnasium and playground equipments equivalent to the total value of all other types put together.

The total value of the entire school plant, buildings and grounds, reaches the huge sum of $16,329,957 for the 77 nonpublic schools reporting in this instance. This sum is 12.5 per cent of the entire valuation of the public schools ($130,443,348), though the number of schools reporting is but 7.4 per cent of the number of public schools. Speaking in averages per school, the value of the entire plant for nonpublic schools is $209,358, against $126,398 for the public schools.

In general, it can be said, speaking relatively, the nonpublic schools represent more capital investment, with better equipments in physics, chemistry, biology, and especially in gymnasiums and playgrounds, but in manual training, sewing, cooking, commercial work, and maps and charts the public schools have better equipments. However, one should bear in mind that the average number of pupils per teacher in the nonpublic schools is only half of that of the public schools. This fact tends to decrease the "average value per school," but to increase the "per capita" value of equipment. On such a basis, the nonpublic schools would have the advantage. Chart LII is a comparative representation of average value of equipments in the nonpublic and public schools, omitting representation of gymnasiums and playgrounds.

TABLE 128.—*Summary of average value (per school) for various equipments.*

Kinds of equipment.	Private schools.	Military schools.	Preparatory schools.	Parochial schools.	All nonpublic schools.
Physics	$1,222	$475	$1,560	$977	$1,348
Chemistry	972	400	1,277	1,049	1,102
Biology	642	100	1,190	3,171	1,109
Manual training	350	1,316	1,159	100	885
Cooking	229	.....	588	252	462
Sewing	98	.....	181	190	155
Commercial	239	533	529	550	448
Physical geography	110	50	108	64	109
Maps and charts	109	70	158	98	125
Playgrounds and gymnasium	8,360	68,833	30,988	3,000	25,224
Entire plant	168,760	259,166	216,282	155,696	209,358

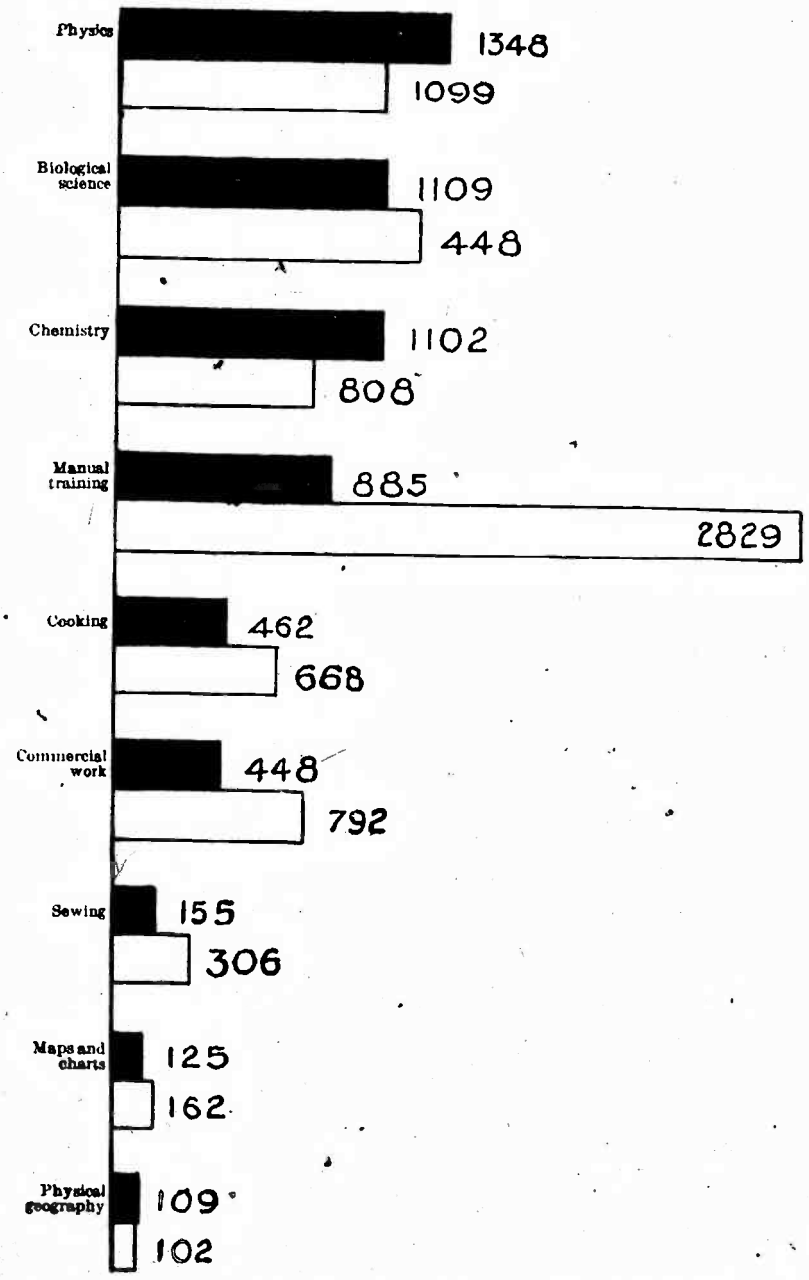


CHART LII.—Average value, per school, of equipment. Dark portions indicate public schools; outlined portions indicate nonpublic schools.

OFFERINGS IN ACADEMIC SUBJECTS.

A study of Table 129 shows that four academic subjects are offered by all of the nonpublic schools, namely, English, algebra, geometry and Latin, which, with the exception of Latin, is true of the public schools. German ranks next to the subjects mentioned above, being found in 96.5 per cent of the nonpublic schools, whereas French is

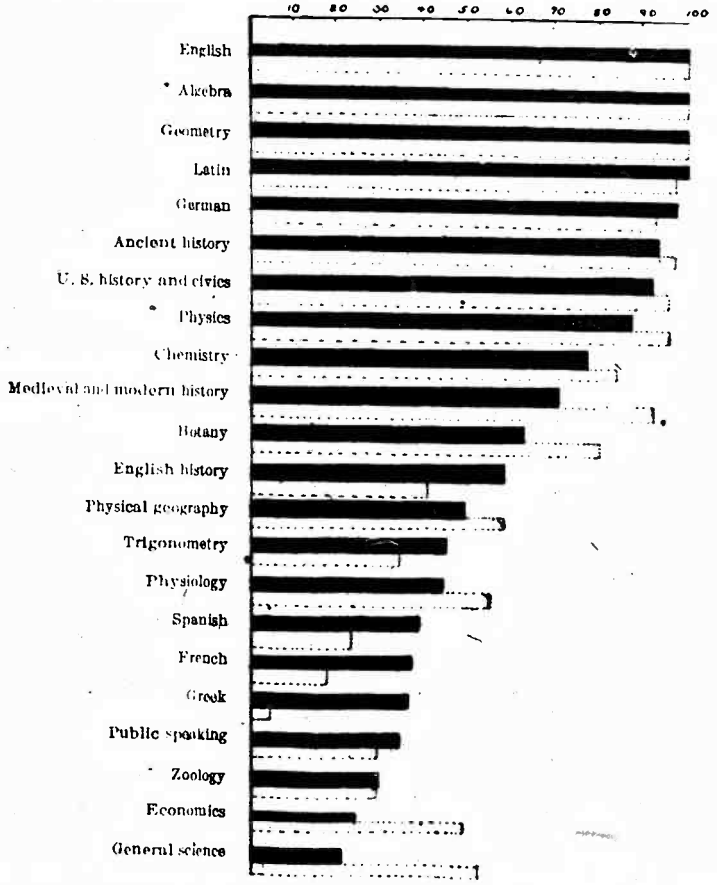


CHART LIII.—Academic offerings (in percentages). Dark portions indicate nonpublic schools; dotted portions, public schools.

taught in but 62.9 per cent of the nonpublic schools. The languages offered, arranged with respect to the largest percentage of schools offering them, is as follows: Latin first, German second, Spanish third, French fourth, and Greek fifth. The same order holds for the public schools. However, a much larger per cent of nonpublic schools offer Greek, 36.5 per cent of them giving opportunity for the study of this

language, while in the public schools the percentage is but 3.59 per cent. General science is offered by only 9.7 per cent of the nonpublic schools, but is found in more than half of the public schools. The subjects found in the nonpublic schools arranged according to rank on a percentage basis are as follows: English, algebra, geometry, and Latin leading; followed by German, ancient history, United States history and civics, physics, chemistry, medieval and modern history, botany, English history, physical geography, trigonometry, physiology, Spanish, French, Greek, public speaking, zoology, economy, and general science. Chart LIII shows the extent to which these subjects are offered.

TABLE 129.—*Academic curricular offerings,*[1] *in percentages, in the nonpublic schools.*

Subjects.	Percentages of schools offering in units.							
	None.	One-half unit.	One unit.	One and one-half units.	Two units.	Two and one-half units.	Three units.	Four units.
English	0.0						18.7	81.3
Latin	0				1.1		10.5	88.4
Greek	63.5				36.5			
German	3.5				36.1		37.2	24.2
French	37.1				22.1		22.1	18.6
Spanish	61.8		8.1		24.3		5.8	
Ancient history	4.6	5.8	89.3					
Medieval and modern history	30.3	4.6	65.1					
English history	43.0	10.5	46.5					
American history and civics	8.2		72.1	19.7				
Algebra	0		4.7	23.3	72.0			
Geometry	0		18.6	81.4				
Trigonometry	55.8	44.2						
Physics	14.0		81.2	1.2	3.6			
Chemistry	21.7		71.9		3.4			
Botany	38.3	20.9	40.7					
Zoology	69.9	22.0	8.1					
Biology	79.2	18.5	2.3					
Physiology	56.0	33.6	10.4					
Physical geography	51.3	33.6	15.1					
General science	80.3	8.1	11.6					
Economics	75.6	20.9	3.5					
Public speaking	65.3	22.0	10.4		2.3			

[1] Three schools offer work in geology and in sociology.

OFFERINGS IN VOCATIONAL SUBJECTS.

It is evident from Table 130 that the offerings in vocational subjects are small, and in comparison with the public schools very small. In only one subject—physical education—do the nonpublic schools have a larger percentage of offerings and this is slight. In all other vocational subjects the public schools have a larger percentage of offerings and in some cases over three times as large. This last statement is true of manual training and commercial arithmetic. The nonpublic schools are much more academic than the public schools and seemingly are much more conservative in introducing the newer vocational subjects. Chart LIV shows the offerings of vocational subjects in graphical form. On an average the nonpublic schools offer 25.3 units

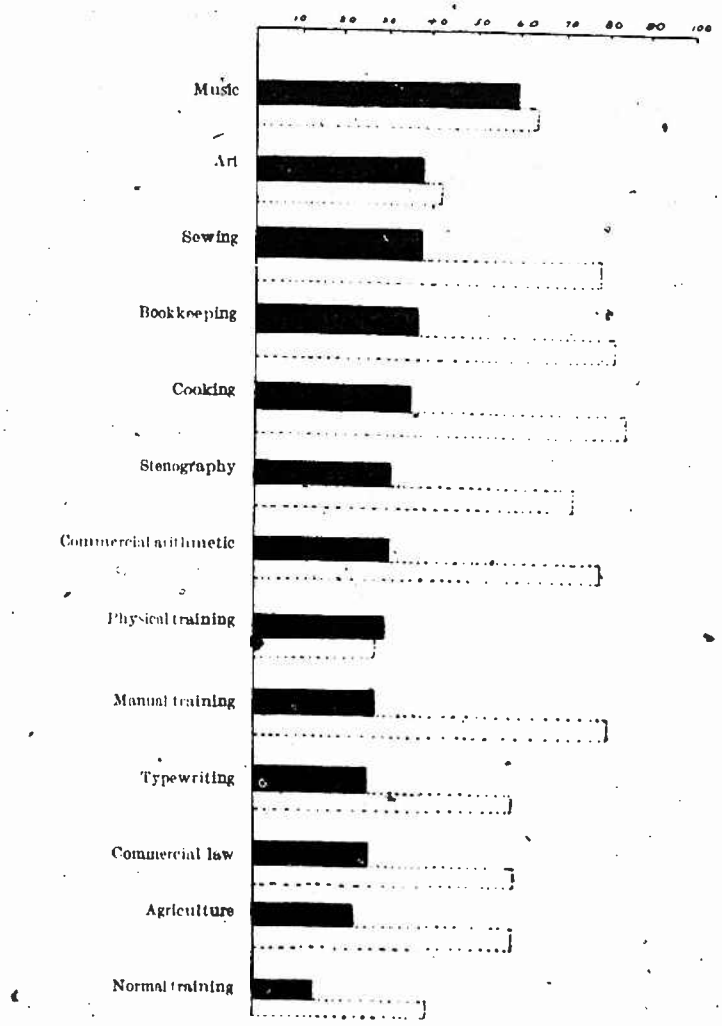


CHART LIV.—Vocational offerings (in percentages). Dark portions indicate nonpublic schools; outlined portions indicate public schools.

of academic subjects and only 5 units of vocational subjects. Table 131 shows the percentages of offerings in academic and vocational subjects in the various types of nonpublic schools.

TABLE 130.—*Vocational curricular offerings, in percentages, in the nonpublic schools.*

Subjects.	Percentage of schools offering, in units.					
	None.	One-half unit.	One unit.	One and one-half units.	Two units.	Three units.
Stenography	70.1	.....	19.5	.....	10.3	.....
Typewriting	74.5	.....	19.5	.....	5.7	.....
Commercial arithmetic	71.3	13.8	14.9	.....	.....	.....
Commercial law	74.7	19.5	5.7	.....	.....	.....
Bookkeeping	63.2	.....	23.0	.....	13.8	.....
Manual training	73.6	.....	9.2	.....	5.7	11.5
Cooking	64.2	.....	24.7	.....	11.1	.....
Sewing	62.9	.....	28.4	.....	8.6	.....
Agriculture	78.2	6.9	9.2	.....	5.7	.....
Art	62.9	.....	18.5	.....	16.1	2.4
Music	58.6	.....	23.0	.....	13.8	4.5
Physical education	71.3	.....	20.7	.....	6.9	1.1
Normal training	88.4	.....	.....	.....	.....	.....

TABLE 131.—*Average number of academic and vocational units offered in each type of nonpublic schools.*

Types of school.	Number of academic units.	Number of vocational units.	Total number of units.	Percentage of academic units.	Percentage of vocational units.
Private school	26.5	5.0	31.5	84.1	15.9
Military school	30.5	7.3	37.8	83.7	16.3
Preparatory school	24.1	4.7	28.8	80.6	19.4
Parochial school	25.0	5.8	30.8	81.2	18.8
All types	25.3	5.0	30.4	83.4	16.6

PART IV.—GENERAL SUMMARY.

The North Central Association at the time of this study (1917) comprises 18 States and accredits 87 nonpublic secondary schools and 1,078 public secondary schools. Of the public schools 1,032 are considered in this study. Of these, 234 are large schools (enrollment over 450), 239 are small schools (enrollment not to exceed 150), and 559 are medium schools (enrollment 151 to 450). These 1,119 schools (1,032 public and 87 nonpublic) enroll 389,863 pupils, or an average of 348 per school. Of these pupils, 213,149 are girls and 176,716 are boys, being an excess of 36,433 girls, or an average excess of 33 per school. Divided by classes, 142,668, or 37.72 per cent of the entire enrollment, are freshmen; 102,438, or 27.08 per cent, are sophmores; 74,057, or 19.58 per cent, are juniors; and 59,038, or 15.61 per cent, are seniors.

Taking the *public* schools by themselves, the study shows: Boys enrolled equal 44.8 per cent; girls enrolled equal 55.2 per cent. The large schools enroll 55.76 per cent of the entire number of pupils in North Central Schools; the medium shools, 37.19 per cent; and the small schools, 7.05 per cent. The ratio of teachers to pupils is approximately 1 to something between 16 and 25. The number of graduates in 1916 was 52,416, or 13.88 per cent of the entire enrollment. Of this number, 20,201 persons, or 38.50 per cent, entered institutions of higher learning the following autumn. Of the enrollment of 377,484 pupils, 51,913, or 13.75 per cent, are not residents of the particular school district in which they are attending school.

Concerning the teachers in the public schools, the study shows the numbers to be: Men 6,916 (38.25 per cent); women 11,163 (61.75 per cent); academic 12,420 (67.36 per cent); vocational 6,007 (32.64 per cent). Of these, 2,982 academic teachers, or 24.04 per cent, and 1,747 vocational teachers, or 29.08 per cent, were new to the given system the year in which the data for this study were collected. Of the 2,982 new academic teachers, 149, or 4.98 per cent, are lacking a college degree; 368, or 12.30 per cent, are lacking the prescribed amount of 11 semesters hours in education; and 660, or 22.06 per cent, were teaching their first year in public schools. If all the teachers (and not merely academic teachers or new teachers) be considered, the study reveals that 71, out of approximately 17,000 persons who replied to the queries, hold the degree of

Ph. D.; 1,668 hold a master's degree; 4,323 have had training in both normal school and university; 4,529 have no college credit in education; 1,905 have some college credit in education, but not 11 semesters hours; and 10,500 have college credit in education equal to or exceeding 11 hours. Of the 6,007 vocational teachers, 2,454, or 40.85 per cent, hold a college degree.

In teaching experience the tables show the following: 4.90 per cent of all teachers have had no previous experience; 15.37 per cent have had less than 3 years'; 23.31 per cent have less than 6 years'; 36.59 per cent have less than 15 years'; and 19.81 per cent have more than 15 years'.

Respecting the length of the school day, 30 report having a five-period day, 85 a six-period day, 516 a seven-period day, 330 an eight-period day, and 39 more than eight periods per day. Likewise, 470 have class periods of 40 minutes; 480, class periods of 45 minutes; 26, class periods of 50 minutes; and 66, still longer class periods.

Among the 12,420 academic teachers, 8,973 teach no more than five periods per day; 3,666 teach six periods per day; and 305 teach seven periods per day. Moreover, 1,149 persons are occupied with school work in excess of the maximum number of thirty-five 45-minute periods per week.

Again, of the 17,000 persons answering the direct query, 13,499, or 79.71 per cent, are teaching the subjects in which they specialized in college or university, leaving 1,911, or 11.28 per cent, who are teaching, in part at least, work for which they had not been specifically prepared to teach. Still further, 13,003, or 78.89 per cent of the teachers reporting, are confining their teaching to a single department of study; 2,862, or 17.36 per cent, distribute their energies over two fields of interest; 538, or 3.26 per cent, teach in three departments of instruction; and 76 persons scatter their attention over more than three fields.

In regard to salaries, 6.66 per cent of all teachers were receiving less than $675 per annum; 25.29 per cent were receiving something between $675 and $899; 38.84 per cent were receiving between $900 and $1,199; 24.01 per cent were receiving between $1,200 and $1,799; and 5.17 per cent were receiving over $1,800.

Considering the buildings and equipment, the report shows 33.43 per cent of the schools to have been erected since 1910, and 21.60 per cent of them in the half decade from 1905 to 1910. The 1.032 public schools contain 2,477,882 volumes in their libraries, or an average of 2,307 volumes per school, and each school is expending annually $221.43 for library purposes.

TABLE 132.--*Value of other equipment.*

Equipment.	Total value.	Value per school.
Physics	$1,134,952	$1,099
Chemistry	834,161	808
Biology	462,884	448
Physical geography	105,293	117.91
Agriculture	158,420	153
Manual training	2,920,553	2,829
Cooking	689,230	668
Sewing	316,406	306
Commercial work	817,601	792
Maps and charts	167,684	162
Gymnasium and play grounds	6,632,214	6,426
Complete plant	130,443,348	126,398

TABLE 133.--*Program of academic studies, in percentages.*

Subjects.	Percentage of schools offering, in units.						
	None.	One-half unit.	One unit.	Two units.	Three units.	Four units.	Over 4 units.
English					8.33	85.	6.49
Latin	2.32			8.52	8.43	80.	
Greek	96.41			3.59			
German	5.62			45.73	24.61	24.03	
French	82.65			7.46	5.02	4.26	
Spanish	77.32		3.68	15.01	3.97		
Ancient history	4.07	4.84	91.08				
Medieval and modern history	9.59	5.62	84.20				
English history	56.97	17.73	25.29				
United States history and civics	4.84	1.84	74.42	[1] 18.95			
Algebra			7.84	[2] 92.14			
Geometry			16.95	[3] 83.04			
Trigonometry	65.40	34.60					
Physics	1.84		95.93	[3] 2.22			
Chemistry	17.92		76.16	[3] 6.00			
Botany	30.13	35.37	31.58	[3] 2.90			
Zoology	70.44	21.11	7.65	[3] .77			
General biology	80.02	18.99					
Physiology	46.51	46.89	6.58				
Physical geography	43.21	40.60	16.18				
Geology	92.63	5.62	1.74				
General science	48.25	18.31	33.43				
Sociology	96.02	3.10	.87				
Economics	52.13	44.08	3.77				
Public speaking	69.67	[4] 16.75	11.04	2.52			

[1] More than 1 unit. [2] Either 1½ or 2 units. [3] 1½ units. [4] ¼ and ½ units.

TABLE 134.—*Vocational subjects.*

Subjects.	Percentage of schools offering, in units.						
	None.	Less than one.	One unit.	One and one-half units.	Two units.	Three units.	Four units.
Art	58.13	21.12	[1] 13.95			[2] 6.78	
Music	37.20	41.18	[1] 18.12			[2] 3.48	
Agriculture	41.46	15.79	23.83		7.54	4.06	7.26
Cooking	16.66		52.13		25.58	[2] 5.62	
Sewing	21.22		48.51		24.41	[2] 5.81	
Manual training	21.60		20.25		34.69	8.43	15.01
Bookkeeping	18.31		41.86		35.85	3.48	.48
Typewriting	31.78		39.43		26.35	2.22	.02
Stenography	28.77		26.93		41.66	2.42	.02
Commercial law	40.69	54.16	5.13				
Commercial arithmetic	22.86	44.47	32.65				
Normal training	60.27	[3] 34.78					[4] 4.85
Physical education	78.64		18.31		5.74	.77	1.55

[1] One to 3 units. [2] More than 3 units. [3] Over 2 units. [4] One-half to 5 units. [5] Over 5 units.

The typical public secondary school accredited by the North Central Association has, therefore, the following characteristics: It is located in a town with a population of 13,518; has an enrollment of 365 pupils, 164, or 44.8 per cent, being boys, and 201, or 55.2 per cent, being girls; and has 55, or 15.39 per cent, pupils in the senior or fourth-year class; 70, or 19.42 per cent, pupils in the junior or third-year class; 97, or 27.15 per cent, pupils in the sophomore or second-year class; 137, or 38.02 per cent, pupils in the freshman or first-year class; and 6, or 0.02 per cent, pupils who are graduate students or unclassified pupils. Such a typical school maintains a ratio of teachers to pupils enrolled of one to something between 16 and 25, and provides a school year of approximately 37 weeks. From this school were graduated 51 pupils in 1916, being 13.88 per cent of the entire high-school enrollment, and being divided in respect to sex in the ratio of 41.85 boys to 58.15 girls. Of the number which graduated, 16 or more (being 38.14 per cent of the whole number) entered institutions of higher learning the following fall. Also, in this typical school of 365 pupils are enrolled 13.75 per cent (or over 50 persons) who are nonresidents in the school district. For the most part, no doubt, these are rural inhabitants.

This typical school likewise employs 17.6 teachers, 12, or 67.36 per cent, for academic work, and 5.6, or 32.64 per cent, for vocational work. Of these teachers, 6.8, or 38.25 per cent, are men, and 10.8, or 61.75 per cent, are women. Of these teachers, 24.61 per cent (that is, 4 or 5 in the typical school) are new to the given system each year. Of the new teachers, only 4.98 per cent are lacking a college degree, only 12.30 per cent are lacking a systematic professional training to the extent of 11 semester hours, and all have had previous teaching experience in some other system of schools except in the cases of 22.06 per cent of the entire number. Among the teachers not new to the given school system, only 10.31 per cent are lacking in college degrees, and 20.14 per cent are without the prescribed amount of professional training now demanded by the association of the new teachers. Taking the entire corps of teachers in the typical high school, 4.90 per cent have had no previous teaching experience; 15.37 per cent have had less than the 3 years' experience; 23.31 per cent have had less than 6 years' experience; 36.59 per cent have had less than 15 years' experience; and 19.81 per cent have had more than 15 years' experience. Of the vocational teachers, 40.85 per cent possess college degrees and 5.11 per cent are teaching academic subjects as well as vocational subjects.

The typical school has a seven-period day, with an average of 43.2 minutes per period. The typical salary of teachers in a typical North Central school is between $900 and $1,199.

The typical accredited school is housed in a spacious, sanitary, hygienic building which has been erected some time within the past 15 years. Such a building contains a library of 2,307 volumes, and there are appropriated for its maintenance and expansion annually the sum of $221.43. This building also has equipment as follows:

TABLE 135.—*Equipment of the typical accredited school.*

For the sciences:		For the arts:		For miscellaneous work:	
Physics	$1,099	Agriculture	$153	Commercial work	$792
Chemistry	808	Manual training	2,829	Maps and charts	182
Biology	448	Cooking	668	Gymnasiums and playground	6,426
Physical geography	118	Sewing	306	Entire school plant[1]	126,398
Total	2,474	Total	3,958		

[1] Building, grounds, etc.

TABLE 136.—*Program of studies in the typical school, expressed in units.*

English	4	Geometry	1	Sociology	0	French	0
Spanish	0	Zoology	0	Agriculture	½–1	United States history	1
Algebra	1½	General science	½–1	Typewriting	1–2	Chemistry	1
Botany	½	Music	0–1	Physical training	0	Physical geography	½
Geology	0	Bookkeeping	1–2	German	2	Public speaking	0
Art	0	Normal training	0	English history	0	Sewing	1
Manual training	1–2	Greek	0	Physics	1	Commercial law	½
Commercial arithmetic	½–1	Medieval and modern history	1	Physiology	½	Total	27–32
Latin	4	Trigonometry	0	Economics	0		
Ancient history	1	General biology	0	Cooking	1		
				Stenography	1–2		

Finally, in the typical school here considered there is about one chance in 250 that one teacher holds a Ph. D. degree, that one teacher in 10 holds an A. M. or M. S. degree, that one teacher in 4 has been educated both at a normal school and a college, that one teacher in 10 (approximately) is teaching one or more subjects for which he never prepared himself especially to teach, and that approximately 8 out of 10 teachers are teaching in one branch or department of study only.

THE NONPUBLIC SCHOOLS.

Taking the nonpublic schools by themselves, the study reveals the following facts: Out of 1,165 schools accredited, only 87 are of a nonpublic character; these 87 are divided once more into four fairly distinct groups; namely, 29 purely private schools, 6 military schools, 5 parochial schools, and 47 schools attached as preparatory departments to institutions of higher learning.

Enrolled in the 87 nonpublic schools are 12,355 pupils, an average of 142 per school. Of these, 7,472, or 60.25 per cent, are boys, and 4,889, or 39.75 per cent, are girls. The total enrollment, therefore, of these nonpublic schools is less than 1 per cent of the enrollment of the accredited public schools.

In 1916, from these 87 nonpublic schools, 2,535 students graduated, and of these persons 1,460, or 57.6 per cent, entered institutions of higher learning the succeeding autumn. The teachers in the nonpublic schools number 1,175, being an average of 13.5 per school and a ratio of 1 teacher to 10 pupils. Of the teachers, 54.3 per cent are men; 45.7 per cent are women. Classified in accordance with the work provided, 74.2 per cent are academic teachers and 25.8 are vocational teachers. Of the 872 academic teachers employed, 203, or 23.2 per cent, were new to the given system in 1916; and of these new academic teachers, 5.3 per cent held no college degree, 21.6 per cent were without the prescribed 11 hours of professional training, and 17.2 per cent had had no previous teaching experience. On the other hand, 159, or 52.40 per cent of all the vocational teachers (new and old together), are college graduates.

Of the academic teachers, 38, or 4.3 per cent of the total number were teaching more than 35 class periods per week, and 103 separate classes (mostly in science) enroll more than 30 pupils each.

Respecting teaching experience, 13.5 per cent of the nonpublic school teachers had had less than 3 years' teaching experience; 18.18 per cent had had less than 6 years'; 36.8 per cent had had less than 15 years'; and 25.5 per cent had had more than 15 years'.

As regards salaries paid, 18.6 per cent of the nonpublic school teachers were receiving less than $675 per annum; 14.5 per cent received from $675 to $899; 25.4 per cent received between $900 and $1,199; 33.1 per cent received between $1,200 and $1,799; and 8.2 per cent received over $1,800.

TABLE 137.—*Equipment of 87 nonpublic schools.*

	Total.	Average per school.
Libraries.....number of volumes.	615,523	7,075
Physics.....value.	$115,951	$1,348
Chemistry	$90,357	$1,102
Biology	$82,052	$1,109
Manual training	$56,639	$885
Cooking	$32,839	$462
Sewing	$10,985	$115
Commercial work	$31,833	$448
Physical geography	$7,289	$109
Maps and charts	$10,364	$125
Gymnasiums and playgrounds	$1,942,275	$25,224
School plant	$16,329,967	$209,358

In the subject matter offered in the nonpublic schools there is the same range which is found in the public schools. The comparison for the several subjects is best shown by Charts LIII and LIV (pp. 129–131).

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