AN AGE-GRADE CENSUS
OF
MISSOURI RURAL SCHOOLS

by

Bertram Harry, B. S. in Ed.

SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS OF THE DEGREE OF
MASTER OF ARTS

in the

GRADUATE SCHOOL

of the

UNIVERSITY OF MISSOURI

1919

CONTENTS

	PAGE
LIST OF TABLES	iv
LIST OF DIAGRAMS	vi
LIST OF MAPS	viii
I. INTRODUCTION	1
II. DATA AND METHOD OF COLLECTION	2
III. GENERAL TABLES AND DIAGRAMS	10
IV. ENROLLMENT-DISTRIBUTION BY AGES	21
V. ENROLLMENT-DISTRIBUTION WITH REFERENCE TO LEGAL SCHOOL AGE	27
VI. ENROLLMENT-DISTRIBUTION WITH REFERENCE TO COMPULSORY ATTENDANCE	30
VII. ENROLLMENT-DISTRIBUTION BY GRADES	42
VIII. BEGINNERS	48
IX. GRADUATES	52
X. ENROLLMENT-NORMAL AGE, BELOW NORMAL AGE, ABOVE NORMAL AGE	57
XI. THE NORMAL AGE GROUP	67
XII. THE BELOW NORMAL AGE GROUP	72
XIII. THE ABOVE NORMAL AGE GROUP	78
XIV. RETARDATION	83
XV. RETARDATION BY MODAL AGES AND BY MEDI- AN AGES	92
XVI. PROGRESS THROUGH THE GRADES	96

CONTENTS

XVII.	THE ABOVE-NORMAL-GRADUATION-AGE GROUP	98
XVIII.	ELIMINATION	104
XIX.	EFFICIENCY	117
XX.	GENERAL SUMMARY	120
XXI.	RECOMMENDATIONS	130
	BIBLIOGRAPHY	133
	APPENDIX	Appendix page 1

LIST OF TABLES

	Page
1. Age-grade census report, 513 schools, 1917-18	11
2. Age-grade census report, 1002 schools, 1916-17	13
3. Age-grade census report, 1917-18, basis 10000 enrolled	.15
4. Age-grade census report, 1916-17, basis 10000 . enrolled	.16
5. Age-grade census report, composite table . .	.17
6. Grade range by ages	.24
7. Enrollment-distribution with reference to com- pulsory attendance age	.31
8. Enrollment-distribution showing those below compulsory attendance age, of compulsory at- tendance age, and above compulsory attend- ance age	.32
9. Average enrollment for compulsory attendance ages and average enrollment for legal ages below those of compulsory attendance . . .	.36
10. Age-grade distribution, above compulsory- attendance-age group	.38
11. Per cent the number of over-compulsory- attendance-age enrollment is of the total enrollment in the upper grades	.38
12. Age-range by grades	.44
13. Educational birth rate	.50
14. Percentage the number of graduates are of the enrollment for the years 1912-13 to 1916-17	53
15. Normal age by grades	.58

LIST OF TABLES

16.	Normal age, below normal age, above normal age	60
17.	Comparison of normal-age, below-normal-age, and above-normal-age enrollment of Missouri, South Dakota, California, and Illinois studies	64
18.	Grade distribution of normal-age pupils . .	68
19.	Distribution of under-age pupils by grade and number of years under age	73
20.	Distribution of over-age pupils by grade and number of years over age	79
21.	Retardation by grade and by number of years retarded	84
22.	Percentage of retardation by grades	85
23.	Loss of time due to retardation	87
24.	Distribution of pupils above normal graduation age	99
25.	The above-normal-graduation-age group compared	101
26.	Enrollment by grades	104
27.	Enrollment by grades, with the per cent each grade enrollment is of the number of beginners, etc.	105
28.	Percentage each age enrollment is of the number of beginners	109
29.	Loss of enrollment from year to year . . .	113

LIST OF DIAGRAMS

	Page
1. Variation of enrollment by grades, years 1916-17, 1917-18, and the average . . .	18
2. Enrollment from grade to grade for the school years 1916-17, 1917-18, and the average	19
3. Enrollment-distribution by ages	22
4. Grade range by ages	25
5. Enrollment-distribution with reference to legal school age.	28
6. Enrollment-distribution with reference to compulsory attendance ages	33
7. Enrollment-distribution with reference to compulsory attendance ages	34
8. Enrollment-distribution with reference to compulsory attendance ages	35
9. Enrollment-distribution by grades	43
10. Age-range by grades	45
11. Below normal age, of normal age, above normal age	61
12. Percentage of enrollment below, of, and above normal age in each grade	62
13. The normal-age group - Missouri, South Dakota, and California	69
14. The below-normal-age group - Missouri, South Dakota, and California	75
15. The above-normal-age group - Missouri, South Dakota, and California	80

LIST OF DIAGRAMS

	Page
16. Normal ages, modal ages, and median ages by grades	93
17. Percentage each grade enrollment is of the number of beginners	106
18. Percentage each year-age enrollment is of the number of beginners	110
19. Number of pupils less in each year-age group than in the preceding	114
20. Comparison of graduates and beginners . .	118

LIST OF MAPS

	Page
1. Rural schools of Missouri from which data were reported and tabulated for the school year 1917-18, reported by normal school districts	6
2. Rural schools of Missouri from which data were reported and tabulated for the school year 1916-17, reported by counties	8

CHAPTER I

INTRODUCTION

Statistics giving us information as to grade and age distribution of the children enrolled in the rural schools of Missouri are simple, certain, easy to gather, and embody valuable information as to many conditions and results of school work.

What pupils enter school, what pupils stay in school, how long they stay, what grades they reach, when they leave, and why they leave, are questions of obvious significance for any educational system. Numerous age-grade studies for determining these facts have been made but practically all refer to city school systems. In the published literature upon this question there is not a comprehensive study bearing upon the rural schools.

It is the problem of this study to make a diagnosis of the educational conditions in the rural schools of Missouri by means of the age-grade census, to compare these conditions with those of other school systems, to determine the shortcomings and the needs and, where practicable, to recommend improvements.

CHAPTER II

DATA AND METHOD OF COLLECTION

The material for this study was collected and made available by the Missouri Co-operative Rural School Survey Committee. It includes (A) specially collected data for the year 1917-1918, and (B) teachers' term reports for the year 1916-1917.

(A) Data for the Year 1917-18

The plan adopted by the Survey Committee for collection of data is shown by the following sections quoted from the Sixty-eighth Report of the Public Schools of the State of Missouri:¹

"The organization for directing the field work is as follows: The State has been divided into five large districts, conforming to the normal school districts. In general, the representative from each normal school is to direct the work in his district, the exception being that the colleges are to direct the work in the counties in which they are located.

"The normal schools and colleges form the centers to which field forms, supplies, etc., are shipped for

(1) Sixty-eighth Report of the Public Schools of the State of Missouri, pp. 69-71.

distribution to the field workers. When the field investigations are finished the data will be returned to these centers for distribution to the points where they will be tabulated.

"It has been planned that the personal inspection of the schools will be made by faculty members of the educational institutions of the State, by city superintendents, and principals, where necessary, and by teacher-training teachers. Most of the inspection will be done by the latter. The meagerness of the funds for carrying on the investigation makes it necessary that the work be donated entirely. Out of the 104 teacher-training teachers in the state, more than ninety signified their willingness to give five to seven days of their time to the investigation of schools in their counties.

"The field workers are to be at no expense except for their board. Their transportation is furnished in various ways. The county superintendents in a great many counties have offered to furnish the field workers transportation. The Daughters of the American Revolution have offered transportation for the field workers who go out of the towns in which their chapters are located. The Missouri Federation of Women's Clubs, which represents 20,000 women in the state, has volunteered to assist in conveying

field workers to the rural schools.

"The limitations of time and of money made it necessary to limit the number of schools investigated. The method of selection raised a rather difficult question. In the many conferences held, a great number of suggestions arose. The method finally chosen represents a combination of the practical and the theoretical.

"The number of schools to be visited by field workers and inspected was finally set at ten per cent of the one-room rural schools in each county in the state. For example, in a county having 100 such schools, ten would be visited by one or two field investigators. These ten schools might be selected in many ways, but it was finally decided to ask each county superintendent to list, on a blank provided for the purpose, ten of the best schools, ten of the medium, and ten of the poorest in his county. (It should be noted that 112 of the county superintendents complied with this request.) He also gave the number of miles from the county seat and from the nearest teacher-training school, and the best means of travel to reach each of the schools listed. From the list ten per cent of the rural schools of the county are to be selected by the representatives from the educational institutions in each district.

The ten per cent will be selected in such a way that one of the schools will be taken from the ten best, one from the ten poorest, and the remainder of the ten per cent from the ten medium schools. In the case of the counties from which the thirty schools were not reported, random selection will be used. The educational institutions' representatives will assign the selected schools to the field workers." ²

For a copy of the blank used for collecting the age-grade census material, see Field Form H, Appendix page 1.

In all, reports from 513 schools were received and tabulated. Distributed by normal school districts these schools were as follows: Kirksville 79, Warrensburg 94, Cape Girardeau 138, Springfield 115, Maryville 87.

After tabulation of the data collected on Field Form H had been begun a limited number of circular letters like that of Appendix, page 2 was sent out for the purpose of securing data upon the number of beginners. Of these reports 101 were returned, about equally distributed among the normal school districts of the state.

(2) Sixty-eighth Report of the Public Schools of the State of Missouri, pp. 69-71.

Missouri

I O W A .

(B) Data for the Year 1916-17

In response to a request from the secretary of the Survey Committee a number of county superintendents sent in their teachers' term reports for the year 1916-17. As each of these term reports that is properly filled out contains both the age and grade of each child enrolled, the construction of an age-grade table from them was only a matter of making the tabulations.

It was not possible to tabulate this material from all the schools of the state but it was tabulated for all properly prepared term reports from the one room schools of fourteen counties. The counties were chosen from among those from which the superintendents had sent in the term reports, upon the basis of geographical location and freedom from consolidated school districts. The counties chosen and the number of schools tabulated in each case is indicated upon the map number two, page 8. In all, 1102 schools were included.

The ages given in the census tables of this study are the ages found in the teacher's register, and are therefore the ages given at the time of enrollment. The special reports collected by the Survey Committee from which the data for the year

RURAL SCHOOLS OF MISSOURI FROM WHICH DATA WERE *Missouri*
 Reported and Tabulated for the School Year
 1916-17, Reported by Counties

I O W A.

N.

1917-18 were tabulated, were filled out during the noon hour by the teachers in charge of the schools visited. Inquiry among inspectors who visited the schools confirmed the statement that the teachers made up these reports from their registers. The teachers' term reports from which the data for the year 1916-17 were tabulated always record the ages as they are found in the register.

CHAPTER III

GENERAL TABLES AND DIAGRAMS

When the data on the age-grade blanks returned to the Survey Committee had been tabulated they were arranged in the form of an age-grade table as shown on page 11. All the children in the same horizontal column are the same age while those in the same vertical column are in the same grade. The ages run from five to twenty, those under five years of age being so few in number as to admit of them being included with the five year olds without noticeably affecting the results. Likewise those over twenty years of age were included with those of twenty. The grades are from one to eight, those found in the elementary schools of Missouri. At the bottom and at the right are totals and percentages to be noted later.

When age and grade data are recorded as in this table these simple facts furnish much information about the condition of the school system under consideration. A glance at each vertical column shows the great variation in age of the children in each grade, while a glance at each horizontal column shows the

TABLE 1 - AGE-GRADE CENSUS REPORT, 513 SCHOOLS, 1917-18

:Age Nearest :	I	II	III	IV	V	VI	VII	VIII	TOTAL
:Birthday :									
: 5 Yrs. and :									
: Under :	553	2	4						559
: 6 :	1336	220	10	7					1573
: 7 :	731	574	183	28	8		4		1528
: 8 :	369	566	640	137	37	1			1750
: 9 :	170	274	630	331	194	12	1		1612
: 10 :	88	170	459	371	543	69	29	8	1737
: 11 :	41	77	245	276	618	192	178	12	1639
: 12 :	27	44	151	174	540	205	434	48	1623
: 13 :	14	29	55	102	343	153	577	176	1449
: 14 :	9	6	35	44	168	120	554	238	1174
: 15 :	6	3	8	18	73	56	306	211	681
: 16 :	4		4	1	33	26	162	142	372
: 17 :	2		4	1	7	5	55	65	139
: 18 :	1				2		20	31	54
: 19 :					2		5	3	10
: 20 and Over :							1	1	2
TOTAL by :									
Grades :	3351	1965	2428	1490	2568	839	2326	935	15,902
:Below)									
:Normal) No. :	553	222	197	172	239	82	212	68	1745
:Age) % :	16.5	11.3	8.1	11.5	9.3	9.8	9.1	7.3	11.0
:Normal) No. :	1336	574	640	331	543	192	434	176	4226
:Age) % :	39.9	29.2	26.4	22.2	21.1	22.9	18.7	18.8	26.6
:Above :									
:Normal) No. :	1462	1169	1591	987	1786	565	1680	691	9931
:Age) % :	43.6	59.5	65.5	66.3	69.6	67.3	72.2	73.9	62.4

Beginning with the first horizontal column the table reads: Of the children five years of age and under 553 are in the first grade, 2 in the second grade, etc.

wide distribution through the grades of children of the same age.

The column of totals at the right enables us to compare the total number of children of the different ages while the first column of totals at the bottom of the table gives us the totals for the children of the different grades.

It will be noted in the column of totals by grades that those for grades one, three, five, and seven far exceed those for grades two, four, six, and eight. This is caused by the plan of alternation of work by years in use in the Missouri rural schools. Because of this alternation data had to be collected for the previous year, 1916-17. This data has been arranged in Table 2, page 13.

By consulting the column of totals by grades of Table 2, page 13, it will be noted here that every other grade is much fuller than the alternate grades, but that the emphasis is reversed, grades two, four, six, and eight having a much heavier enrollment than grades three, five, and seven.

To get rid of these temporary fluctuations it was necessary to reduce each of the tables to the basis of 10,000 and take the average.

TABLE 2 - AGE-GRADE CENSUS REPORT, 1002 SCHOOLS, 1916-17

:Age Nearest	:	:	:	:	:	:	:	:	:	:
:Birthday	I	II	III	IV	V	VI	VII	VIII	TOTAL	:
:5 Years and	:	:	:	:	:	:	:	:	:	:
:Under	1134	25	1	:	:	:	:	:	1160	:
:6	2822	312	29	4	:	:	:	:	3167	:
:7	1813	939	267	51	1	:	:	:	3071	:
:8	896	1060	811	406	16	9	:	:	3198	:
:9	423	684	847	1026	121	69	1	:	3171	:
:10	207	398	575	1181	361	386	13	9	3130	:
:11	88	190	317	913	456	843	63	51	2971	:
:12	47	130	218	579	395	1080	243	275	2967	:
:13	21	50	117	375	290	971	323	668	2815	:
:14	8	37	61	186	165	670	283	898	2308	:
:15	5	11	20	90	96	320	219	886	1648	:
:16	1	4	11	37	38	148	112	621	972	:
:17	1	1	1	8	13	41	43	309	417	:
:18	1	:	:	1	2	16	20	138	178	:
:19	:	:	1	:	2	3	3	15	68	:
:20 and Over	:	:	:	1	2	3	:	25	31	:
:TOTAL by	:	:	:	:	:	:	:	:	:	:
:Grades	7467	3841	3326	4858	1959	4561	1323	3937	31,272	:
:Below)	:	:	:	:	:	:	:	:	:	:
:Normal) No.	1134	337	297	461	138	464	77	338	3246	:
:Age) %	3.6	1.0	1.0	1.5	.5	1.5	.3	1.0	10	:
:Normal) No.	2822	939	811	1026	361	843	243	668	7713	:
:Age) %	9	3	2.6	3	1	2.5	.8	2	25	:
:Above)	:	:	:	:	:	:	:	:	:	:
:Normal) No.	3511	2565	2218	3371	1460	3254	1003	2931	20313	:
:Age) %	11	8	7	10.8	4.6	10.5	3	9.4	65	:

Beginning with the first horizontal column the table reads: Of the children five years of age and under 1134 are in the first grade, 25 in the second grade, etc.

Table 1 reduced to the basis of 10,000 gives Table 3, page 15, and Table 2 gives Table 4, page 16. The average of Tables 3 and 4 gives Table 5, page 17, which is the basic table for the later discussions of the study.

Diagram 1, page 18, shows the effect of alternation upon the grade enrollment for the years 1916-17 and 1917-18. It also shows how the variations neutralize each other and give the smooth curve which represents the conditions presented in Table 5.

No attempt was made to tabulate data showing the extent to which alternation is practiced, but from the term reports from which the age-grade data for 1916-17 were taken, the conclusion is inevitable that alternation is the common practice for grades five and six and for grades seven and eight, and that it is carried out quite extensively in grades three and four.

The irregularity in the curves for 1916-17 and 1917-18 seems to be due to the tendency of pupils to find classification in the years that take the work regularly rather than in the years that take it irregularly. That is, pupils finishing the sixth grade work in the spring of 1916 entered upon the work of the eighth grade in September, which means they began the eighth grade work without having had the work of the

15.

Beginning with the first horizontal column the table reads: Of the children five years of age and under, 347.8 are in the first grade, 1.2 in the second grade, etc.

TABLE 4 - AGE GRADE CENSUS REPORT 1916-17
(Basis 10,000 Enrolled)

:Age Nearest :	:	:	:	:	:	:	:	:	:	:
:Birthday :	I :	II :	III :	IV :	V :	VI :	VII :	VIII :	TOTAL :	:
: 5 Years and:	:	:	:	:	:	:	:	:	:	:
: Under :	364.1:	8.0:	.3:	:	:	:	:	:	372.4 :	:
: 6 :	902.3:	99.8:	9.3:	1.2:	:	:	:	:	1012.6 :	:
: 7 :	579.8:	300.3:	85.4:	11.3:	.3:	:	:	:	982.1 :	:
: 8 :	285.4:	339.0:	259.3:	129.8:	5.1:	2.8:	:	:	1021.4 :	:
: 9 :	135.3:	218.7:	270.8:	328.0:	38.7:	22.0:	.3:	:	1013.8 :	:
: 10 :	65.5:	127.3:	183.9:	377.6:	115.4:	123.4:	4.2:	2.8:	1000.1 :	:
: 11 :	28.2:	60.8:	117.4:	291.9:	145.8:	269.5:	21.0:	16.3:	950.9 :	:
: 12 :	15.0:	41.6:	69.7:	185.1:	126.3:	345.3:	77.7:	87.9:	948.6 :	:
: 13 :	6.7:	16.0:	37.4:	119.9:	92.7:	310.5:	103.3:	213.6:	900.1 :	:
: 14 :	2.6:	11.8:	19.4:	59.5:	52.8:	215.2:	90.5:	287.1:	738.9 :	:
: 15 :	1.6:	3.5:	6.4:	28.7:	31.0:	102.3:	70.0:	283.3:	526.8 :	:
: 16 :	.3:	1.3:	3.5:	11.9:	12.2:	47.3:	35.8:	198.6:	310.9 :	:
: 17 :	.3:	.3:	.3:	2.5:	4.2:	13.1:	13.8:	98.8:	133.3 :	:
: 18 :	.3:	:	:	.3:	.6:	5.1:	6.4:	44.1:	56.8 :	:
: 19 :	:	:	.3:	:	.6:	1.6:	.9:	18.2:	21.6 :	:
: 20 and Over:	:	:	:	.3:	.6:	.9:	:	7.9:	9.7 :	:
:TOTAL by :	:	:	:	:	:	:	:	:	:	:
:Grades :	2387.4:	1228.4:	1063.4:	1553.0:	626.3:	1459.0:	423.9:	1258.6:	10000.0 :	:
:Below) :	:	:	:	:	:	:	:	:	:	:
:Normal) No. :	364.1:	107.8:	95.0:	147.3:	44.1:	148.2:	25.5:	107.0:	1039.0 :	:
:Age) % :	15.2:	8.8:	8.9:	9.5:	7.1:	10.1:	6.0:	8.5:	10.4 :	:
:Normal) No. :	902.3:	300.3:	259.3:	328.0:	115.4:	269.5:	77.7:	213.6:	2466.1 :	:
:Age) % :	37.8:	24.4:	24.4:	21.1:	18.4:	18.5:	18.3:	17.0:	24.7 :	:
:Above) :	:	:	:	:	:	:	:	:	:	:
:Normal) No. :	1121.0:	820.3:	709.1:	1077.7:	466.8:	1041.3:	320.7:	938.0:	6494.9 :	:
:Age) % :	47.0:	66.8:	66.7:	69.4:	74.5:	71.4:	75.7:	74.5:	64.9 :	:

Beginning with the first horizontal column the table reads: Of the children five years of age and under 364.1 are in the first grade, 8.0 in the second grade, etc.

TABLE 5 - AGE GRADE CENSUS REPORT
Composite Table, 1916-17 and 1917-18, Basis 10,000 Enrolled

:Age Nearest	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
:Birthday	:	I	:	II	:	III	:	IV	:	V	:	VI	:	VII	:	VIII	:	TOTAL	:
:5 Years and	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
:Under	:	355.9:	:	4.6:	:	1.4:	:	:	:	:	:	:	:	:	:	:	:	361.9	:
:6	:	871.3:	:	119.1:	:	7.8:	:	2.8:	:	:	:	:	:	:	:	:	:	1001.0	:
:7	:	519.7:	:	330.7:	:	100.2:	:	17.0:	:	2.6:	:	:	:	1.2:	:	:	:	971.4	:
:8	:	258.7:	:	347.5:	:	380.9:	:	108.0:	:	14.2:	:	1.7:	:	:	:	:	:	1061.0	:
:9	:	121.2:	:	195.5:	:	333.5:	:	268.1:	:	80.4:	:	14.7:	:	.4:	:	:	:	1013.8	:
:10	:	60.4:	:	117.1:	:	236.3:	:	305.4:	:	228.4:	:	83.4:	:	11.2:	:	3.9:	:	1046.1	:
:11	:	27.0:	:	54.6:	:	135.7:	:	232.8:	:	267.2:	:	195.1:	:	66.5:	:	12.0:	:	990.9	:
:12	:	16.0:	:	34.6:	:	82.3:	:	147.2:	:	233.0:	:	237.1:	:	175.3:	:	59.1:	:	984.6	:
:13	:	7.8:	:	17.1:	:	36.0:	:	92.0:	:	154.2:	:	203.3:	:	233.0:	:	162.2:	:	905.6	:
:14	:	4.1:	:	7.8:	:	20.7:	:	43.6:	:	79.2:	:	145.3:	:	219.4:	:	218.4:	:	738.5	:
:15	:	2.7:	:	2.7:	:	5.7:	:	20.0:	:	38.5:	:	68.8:	:	131.2:	:	208.0:	:	427.6	:
:16	:	1.4:	:	.6:	:	3.0:	:	6.3:	:	16.5:	:	31.8:	:	68.9:	:	144.0:	:	322.5	:
:17	:	.8:	:	.2:	:	1.4:	:	1.5:	:	4.3:	:	8.1:	:	24.2:	:	69.8:	:	110.3	:
:18	:	.4:	:	:	:	:	:	.2:	:	.9:	:	2.6:	:	9.5:	:	31.8:	:	45.4	:
:19	:	:	:	:	:	.2:	:	:	:	.9:	:	.8:	:	2.1:	:	10.0:	:	14.0	:
:20 and Over	:	:	:	:	:	:	:	.1:	:	.3:	:	.5:	:	.3:	:	4.2:	:	5.4	:
:TOTAL by	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
:Grades	:	2247.4:	:	1232.1:	:	1295.1:	:	1245.0:	:	1120.6:	:	993.2:	:	943.2:	:	923.4:	:	10000.0	:
:Below) No.	:	356.0:	:	123.7:	:	109.5:	:	127.7:	:	97.2:	:	99.8:	:	79.3:	:	74.9:	:	1068.1	:
:Normal) %	:	15.8:	:	10.0:	:	8.5:	:	10.3:	:	8.7:	:	10.1:	:	8.4:	:	8.1:	:	10.7	:
:Age)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
:Normal) No.	:	871.2:	:	330.7:	:	330.9:	:	268.1:	:	228.4:	:	195.1:	:	175.3:	:	162.2:	:	2561.9	:
:Age) %	:	38.8:	:	26.9:	:	25.5:	:	21.5:	:	20.4:	:	19.6:	:	18.6:	:	17.6:	:	25.6	:
:Above)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
:Normal) No.	:	1020.2:	:	777.7:	:	854.7:	:	849.2:	:	795.0:	:	698.3:	:	688.6:	:	686.3:	:	6370.0	:
:Age) %	:	45.4:	:	63.1:	:	66.0:	:	68.2:	:	70.9:	:	70.3:	:	73.0:	:	74.3:	:	63.7	:

Beginning with the first horizontal column the table reads: Of the children five years of age and under 355.9 are in the first grade, 44.6 in the second grade, etc.

DIAGRAM 1 - VARIATION OF ENROLLMENT BY GRADES, YEARS 1916-17, 1917-18, AND THE AVERAGE
(Based on Tables 3, 4, and 5)

DIAGRAM 2 - ENROLLMENT VARIATION FROM GRADE
TO GRADE 1916-17, 1917-18, AND AVERAGE
(Based on Tables 3, 4, and 5)

seventh grade. On the other hand, pupils finishing the sixth grade work in 1917 on entering school in September following, took up the work of the seventh grade, which is to be followed by the work of the eighth grade beginning in September 1918. Because of the manifest advantage of taking the work of these years consecutively rather than taking the higher grade first, every other year shows an emphasized enrollment, the emphasis coming upon the years which take the work regularly.

Another cause of the fluctuation is probably found in the tendency of teachers to record pupils of doubtful classification as of that year for which the work is being given.

That these influences are about the same from year to year is shown by the fact that the curve representing the average condition for the two school years is quite free from the fluctuations so pronounced in the curves for each of the school years given.

CHAPTER IV

ENROLLMENT - DISTRIBUTION BY AGES

The diagram for enrollment by ages, page 22, shows that as a rule the enrollment for odd numbered ages falls below that for even numbered ages. There is no reason why this should be true in a composite table such as the diagram is based upon. The explanation probably is found in a tendency of teachers to report ages as of even numbers rather than of odd numbers where there is doubt as to the exact age.

The general tendency is for pupils to enter school at an early age and to leave after a few years of attendance. The ages for which enrollment is tabulated are five to twenty inclusive. Out of every 10,000, 7451.7 are enrolled in the first eight years and only 2549.3 in the second eight years. Of this last number only 175.1 are enrolled in the last four years. In other words, seventy-five per cent of the enrollment is found in the first half of the school attendance ages and only one and three-fourths per cent in the last fourth.

The number of six-year-olds is about the average

DIAGRAM 3 - ENROLLMENT-DISTRIBUTION BY AGES
(Based on Table 5)

PLATE A - FOR SALE BY THE UNIVERSITY CO-OPERATIVE STORE, COLUMBIA, MO.

DEPARTMENT OF ENGINEERING, UNIVERSITY OF MO.

Each year age enrollment is expressed as per cent of six-year-old pupils.

for the years six to twelve inclusive for which ages the enrollment is fairly constant. At thirteen the enrollment has begun to decrease. At fourteen, the last year of compulsory attendance, about twenty-five per cent of the pupils in school two years before have dropped out. At fifteen almost half of those of the previous year have quit school, and by the next year enrollment is only forty-three per cent of the enrollment for fourteen years of age and but thirty-two and eight-tenths per cent of the enrollment for twelve years of age. The enrollment above sixteen years of age would be negligible were it not for the fact that these pupils furnish a high percentage of those who remain to complete the course.

A most interesting feature of the data presented in this study is that shown by the number of grades in which the pupils of each age are found. These data are presented in Table 6, page 24. It is worthy of note that each of the age-groups ten to eighteen has members enrolled in each of the eight grades.

TABLE 6 GRADE RANGE BY AGES

(Based upon Table 5, Page 17)

Pupils 5 years of age are enrolled in grades 1 to 3

"	6	"	"	"	"	"	"	"	1	"	4
"	7	"	"	"	"	"	"	"	1	"	7
"	8	"	"	"	"	"	"	"	1	"	6
"	9	"	"	"	"	"	"	"	1	"	7
"	10	"	"	"	"	"	"	"	1	"	8
"	11	"	"	"	"	"	"	"	1	"	8
"	12	"	"	"	"	"	"	"	1	"	8
"	13	"	"	"	"	"	"	"	1	"	8
"	14	"	"	"	"	"	"	"	1	"	8
"	15	"	"	"	"	"	"	"	1	"	8
"	16	"	"	"	"	"	"	"	1	"	8
"	17	"	"	"	"	"	"	"	1	"	8
"	18	"	"	"	"	"	"	"	1	"	8
"	19	"	"	"	"	"	"	"	3	"	8
"	20	"	"	"	"	"	"	"	4	"	8

DIAGRAM 4 - GRADE RANGE BY AGES
(Based on Table 6)

Summary

The general tendency is for pupils to enter early and to leave early.

Three-fourths of all pupils are enrolled in the first half of the school attendance-ages and only one and three-fourths per cent in the last fourth.

The enrollment is fairly constant for the ages six, seven, eight, nine, ten, eleven, and twelve.

The age enrollment shows a decided tendency to decrease after the age of twelve and at fourteen twenty-five per cent of those enrolled at twelve are gone. The number in the fifteen-year-old group is slightly more than half that in the fourteen-year-old group, and at seventeen the number enrolled is only one-fourth that at fifteen.

Of the sixteen year-age groups nine have pupils enrolled in each of the eight grades.

CHAPTER V

ENROLLMENT - DISTRIBUTION WITH REFERENCE TO LEGAL SCHOOL AGE

The legal school age in Missouri is six to twenty, inclusive. A consideration of diagram 5, page 28, shows that there are about one-third as many pupils enrolled who are under the legal age limit as are enrolled in the first year of legal age. The number of pupils enrolled who are above legal age is so small as to be negligible. A further consideration reveals the fact that there are twice as many pupils enrolled who are below the legal minimum, six years, as are enrolled in the last four years of legal age, seventeen, eighteen, nineteen, and twenty.

The maximum legal age is sufficiently high to admit practically all applicants under the present system of rural education. Only one and three-fourths per cent of the total enrollment is included in the last four years of legal age.

The fact that one-third of the beginners enter school before reaching the legal age of six years shows that the minimum legal age is at variance with current practice.

DIAGRAM 5 - ENROLLMENT-DISTRIBUTION WITH REFERENCE TO LEGAL SCHOOL AGE
(Based on Table 5)

Each year age enrollment is expressed in per cent of six-year-old pupils.
The shaded portions represent the years of legal school age.

Summary

One-third of the beginners enter school before reaching the minimum legal age of six years.

Very few pupils are enrolled during the last four years of legal age.

CHAPTER VI

ENROLLMENT - DISTRIBUTION WITH REFERENCE TO COMPULSORY ATTENDANCE

"Every parent, guardian or other person in the State of Missouri having charge and control of a child between the ages of eight and fourteen years shall cause such child to attend regularly some day school."³

The compulsory attendance ages in Missouri are eight years to fourteen years inclusive for all pupils who are physically able to attend school, and fifteen to sixteen inclusive for all others whose labor is not required for maintenance of family. The only exceptions are in favor of pupils enrolled in some other educational institution, and pupils who have finished the elementary course of study. Since the fifteen to sixteen-year-old clause has seldom been enforced in the rural districts, we may consider for practical purposes that the compulsory attendance age is from eight to fourteen.

Table 7, page 31, shows the pupils enrolled who are of compulsory attendance age and those enrolled

(3) Revised School Laws of the State of Missouri - Revised Statutes, 1909, p. 113.

TABLE 7 - ENROLLMENT-DISTRIBUTION WITH REFERENCE TO COMPULSORY ATTENDANCE AGE
(Basis 10,000 Enrolled)

	Of	Not Of	
	Compulsory Attendance Age:	Compulsory Attendance Age:	TOTAL:
Number	6740.5	3259.5	10000
Per Cent	67.4	32.6	100

For every 6740.5 who are of compulsory attendance age there are 3259.5 who are not of compulsory attendance age.

TABLE 8 - ENROLLMENT-DISTRIBUTION SHOWING THOSE BELOW COMPULSORY ATTENDANCE AGE, OF COMPULSORY ATTENDANCE AGE, AND ABOVE COMPULSORY ATTENDANCE AGE

	Below	Of	Above	
	Compulsory	Compulsory	Compulsory	
	Attendance Age:	Attendance Age:	Attendance Age	TOTAL
Number	2334.3	6740.5	925.2	10000
Per Cent	23.3	67.4	9.2	100

Out of every 10,000 enrolled there are 2334.3 who are below compulsory attendance age, 6740.5 who are of compulsory attendance age, and 925.2 who are above compulsory attendance age.

who are not of compulsory attendance age. Table 8 on the same page shows the pupils enrolled who are below compulsory attendance age, who are of compulsory attendance age, and those who are above compulsory attendance age.

Table 7, page 31, shows that 67.4 per cent of the total enrollment is made up of pupils of compulsory attendance ages (eight to fourteen) and 32.6 per cent of pupils younger than eight and older than fourteen. Table 8, page 31, reveals the fact that 23.3 per cent of all pupils enrolled are under eight and only 9.2 above fourteen.

Diagram 8, page 35, shows the age distribution of the enrollment with reference to compulsory attendance. The shaded areas represent compulsory attendance ages and the unshaded areas ages not included within the compulsory attendance requirements. (Areas for ages fifteen and sixteen are not shaded for the reason given on page 30).

Special attention is called to the fact that the number enrolled in the first legal year age group (six) exceeds that of any year-age group after that for the age of ten. In other words, the enrollment for the age-group two years younger than the first year of compulsory attendance exceeds the enrollment

DIAGRAM 6 - ENROLLMENT-DISTRIBUTION WITH
REFERENCE TO COMPULSORY ATTENDANCE AGES
(Based on Table 7)

DIAGRAM 7 - ENROLLMENT-DISTRIBUTION WITH
REFERENCE TO COMPULSORY ATTENDANCE AGES
(Based on Table 8)

*Of Compulsory
Attendance Age*

DIAGRAM 8 - ENROLLMENT-DISTRIBUTION WITH REFERENCE TO COMPULSORY ATTENDANCE AGES
(Based on Table 5)

Each year age enrollment is expressed in per cent of six-year-old pupils.

TABLE 9 - AVERAGE ENROLLMENT FOR COMPULSORY
ATTENDANCE AGES AND AVERAGE ENROLLMENT
FOR LEGAL AGES BELOW THOSE OF
COMPULSORY ATTENDANCE

Total Number Enrolled Ages 6 and 7	Total Number Enrolled Ages 8, 9, 10, 11 12, 13, 14
1972.4	6740.5
Average 986.2	Average 962.9

in each of the last five year-age groups of compulsory attendance. The enrollment of fourteen-year-olds is less than three-fourths of the enrollment of the six-year-olds. Table 9, page 36, shows that the average year-age enrollment for the legal ages below the compulsory attendance minimum exceeds the average year-age enrollment for the compulsory attendance ages.

The large enrollment for the ages six and seven, before the compulsory attendance law becomes effective, when contrasted with the marked loss of numbers for the ages thirteen and fourteen, the last two years of compulsory attendance, shows rather conclusively that the compulsory attendance law has little effect upon enrollment in the schools of the children coming under its provisions. If the children do not want to attend school they do not enroll.

Table 10, page 38, shows that for every 10,000 pupils enrolled there are 925.2 or about ten per cent that are too old to come within the provisions of the compulsory attendance law. A study of Table 11, page 38, makes clear the importance of this group. Its members constitute 50.7 per cent of the enrollment of the eighth grade, 25.0 per cent of that of the seventh grade, and 11.3 per cent of that of the sixth grade.

TABLE 10 - AGE-GRADE DISTRIBUTION, ABOVE-COMPULSORY-ATTENDANCE-AGE GROUP
(Over Fourteen Years of Age)

Over Compulsory:	I	II	III	IV	V	VI	VII	VIII	TOTAL
Attendance Age	I	II	III	IV	V	VI	VII	VIII	TOTAL
1 year	2.7	2.7	5.7	20.0	38.5	68.8	131.2	208.0	427.6
2 "	1.4	.6	3.0	6.3	16.5	31.8	68.9	144.0	322.5
3 "	.8	.2	1.4	1.5	4.3	8.1	24.2	69.8	110.3
4 "	.4	---	---	.2	.9	2.6	9.5	31.8	45.4
5 "	---	---	.2	---	.9	.8	2.1	10.0	14.0
6 "	---	---	---	.1	.3	.5	.3	4.2	5.4
TOTAL	5.3	3.5	10.3	28.1	61.4	112.6	236.2	467.8	925.2

Of the pupils one year over compulsory attendance age 2.7 are in grade one, 2.7 in grade two, 5.7 in grade three, etc.

TABLE 11 - PER CENT THE NUMBER OF OVER-COMPULSORY-ATTENDANCE-AGE
ENROLLMENT IS OF TOTAL ENROLLMENT IN THE UPPER GRADES
(Based on Table 5, page 17)

Grade	Number Enrolled	Number Over Compulsory Attendance Age	Per Cent Over Compulsory Age
VIII	923.4	467.8	50.7
VII	943.2	236.2	25.0
VI	993.2	112.6	11.3
V	1120.6	61.4	5.5

Of every 923.4 pupils enrolled 467.8 or 50.7 per cent are over compulsory attendance age.

Special attention is called to this group of over-compulsory-attendance-age children, because of the importance of keeping them in school. The great question for school officers and teachers is not to keep the children in school until they are fourteen years old, but to keep them in school until they complete the course.

Summary

One-third of the pupils enrolled in the rural schools of Missouri are outside the age limits set for compulsory attendance.

Over seventy per cent of those outside the compulsory attendance limits are below the compulsory attendance minimum age, and a little less than thirty per cent are above the compulsory attendance maximum age.

The number enrolled at fourteen, the last year of compulsory attendance, is less than three-fourths of the number enrolled at six, the first year of legal school age and two years prior to the first year of compulsory attendance.

The average year-age enrollment is higher for the two years below the compulsory attendance minimum than the average year-age enrollment for the seven years of compulsory attendance.

The loss of numbers at thirteen and fourteen shows the compulsory attendance law is not being effectively enforced.

Only 9.2 per cent of the pupils enrolled are over fourteen years of age but this 9.2 per cent furnishes 50.7 per cent of pupils in the eighth grade, 25.0 per cent of pupils in the seventh grade, and 11.3 per cent of those in the sixth grade.

CHAPTER VII

ENROLLMENT - DISTRIBUTION BY GRADES

Diagram 9, page 43, showing enrollment by grades, records the fact that for every one hundred pupils in the first grade there are fifty-five in the second, fifty-eight in the third, fifty-six in the fourth, fifty in the fifth, forty-four in the sixth, forty-two in the seventh, and forty-one in the eighth. The figures show the customary, unusually large enrollment in grade one. The gradual decrease in enrollment after grade three is conclusive evidence of the annual loss of pupils from the public schools. Forty-one out of every one hundred stay in school until they enter the eighth grade. Only seventy-one out of every one hundred in the third grade are to be found in the eighth grade. The greatest loss is from the fourth and fifth grades. From the sixth grade on the enrollment is fairly constant.

There are fewer pupils in grade two than in either grade one or grade three. This is a condition that cannot be explained on the basis of elimination

DIAGRAM 9 - ENROLLMENT-DISTRIBUTION BY GRADES
(Based on Table 5)

Each grade enrollment is expressed in per cent of the first grade enrollment.

TABLE 12 - AGE-RANGE BY GRADES
(Based on Table 5)

<u>Grade</u>	<u>Variation in Ages</u>	<u>Range</u>
I	5 to 18, inclusive,	14
II	5 to 17, "	13
III	5 to 19, "	15
IV	6 to 18, "	13
V	7 to 20, "	14
VI	8 to 20, "	13
VII	7 to 20, "	14
VIII	10 to 20, "	11

DIAGRAM 10 - AGE-RANGE BY GRADES
(Based on Table 5)

and the explanation must be found elsewhere. The data of this study are inadequate to do more than indicate that the progress of pupils from grade one to grade three is obstructed. The explanation of the difficulty calls for a separate study.

The age-range by grades is almost as startling as the grade-range by ages shown by Diagram 5, page 25.

That good work cannot be done with pupils varying so widely in age in the same group does not need proof. The causes of these conditions should be made a problem of special study and measures introduced to reduce the age-range within each of the groups.

Summary

The enrollment in grade one is unusually large. The enrollment in the second largest grade is only 58 per cent of the first grade enrollment. This piling up of enrollment in grade one indicates unsatisfactory working conditions, poor classification, and probably a too high standard of promotion.

The second grade enrollment is less than that of either the first or the third. The progress from grade one to grade three is obstructed and a special study is needed to locate the cause of the obstruction.

The age-range for the different grades varies from eleven years in grade eight to fifteen years in grade three. This range is too great to admit of efficient work being done.

CHAPTER VIII

BEGINNERS

Any study of school enrollment soon brings up the question of the number of beginners, or the educational birth rate.

Thorndike took as his formula for determining the number of beginners one-third the total enrollment of grades one, two, and three. Ayers thought the Thorndike formula gave results too large and used one-sixth the total enrollment of ages seven, eight, nine, ten, eleven, and twelve.

The validity of either formula for the rural schools of Missouri seemed doubtful and data were collected from 101 schools for the year 1917-18, and also taken from certain of the teachers' term reports for 1916-17, which happened to have included data from which the number of beginners could be computed.

The blank sent out for 1917-18 is the same as the sample included in the appendix, page 2. The particular term reports for 1916-17 which made

possible the finding of the number of beginners were like that in the appendix, page 4. It will be noted that in the third column after that for the names the blank has a column for the "year." Fortunately for this study, a number of teachers interpreted this to mean the number of years the pupil had been enrolled in school. Since all the beginners on these reports were therefore marked as one, it was easy to count the number of beginners.

By comparing the number of beginners with the number enrolled in these schools, a number was obtained which showed the per cent the beginners were of the total number enrolled (Table 13, page 50).

Substituting in the Ayers formula⁴ from the figures in Table 5, page 17, the beginners are found to be 10.3 per cent of those enrolled. Substituting in the Thorndike formula the beginners are found to be 15.9 per cent of those enrolled. It will be seen that Ayers' formula gives a result only 70.2 per cent of what it should be, while Thorndike's formula gives a result 10.4 per cent too large.

For use in this study the educational birth rate will be taken as 14.4 per cent of the enrollment.

(4) Ayers, Laggards in Our Schools, pp. 52, 63.

TABLE 13 - EDUCATIONAL BIRTH RATE

: Year :	: Schools :	: Beginners :	: Enroll- : ment :	: Per cent of : Beginners :
: 1917-18 :	: 101 :	: 408 :	: 3028 :	: 13.5 :
: 1916-17 :	: 168 :	: 845 :	: 5481 :	: 15.3 :
Average for two years				14.4

For the school year 1917-18 in 101 schools there were 408 beginners out of a total enrollment of 3028. The number of beginners being 13.5 per cent of the number enrolled, etc.

Summary

The educational birth rate as determined from the limited data tabulated is 14.4 per cent of the total enrollment.

The educational birth rate as determined by this study is less than that obtained by the Thorndike formula and greater than that obtained by the Ayers formula.

CHAPTER IX

GRADUATES

Rural school graduation is something of an innovation in Missouri. The first record to be found of the number of rural school graduates is for the class finishing in the spring of 1913. Classes have been graduated annually since that time.

The accompanying table, page 53, shows the enrollment, number of graduates, the per cent which the number of graduates is of the enrollment for the year, and the average per cent for the years 1913-14 and 1914-15, and for the years 1915-16 and 1916-17.

Comparison of the number of graduates and the enrollment for corresponding years shows in general that the enrollment has fallen, while the number of graduates has increased.

Owing to the system of alternation in use in the rural schools of the state the eighth grade work is arranged so as to alternate annually with the seventh grade work, the seventh grade work being given during the school years 1913-14, 1915-16, etc.,

TABLE 14

PERCENTAGE THE NUMBER OF GRADUATES ARE OF THE
ENROLLMENT FOR THE YEARS 1912-13 TO 1916-17
(Based on Table 1, Appendix)

Year	Enrollment	Graduates	Per Cent	Average
1912-13	348,210	4,658	1.34	
1913-14	343,757	5,186	1.51	2.21
1914-15	342,806	9,278	2.71	
1915-16	348,653	5,608	1.61	2.25
1916-17	315,160	9,143	2.90	

For the school year 1912-13 there were enrolled in the rural schools of Missouri 348,210 pupils, 4,658 of whom graduated at the close of the school year, the number of graduates being 1.34 per cent of the total enrollment, etc.

and the eighth grade work being given during the years 1914-15, 1916-17, etc. This arrangement seems to facilitate graduation at the close of those school years during which the eighth grade work has been given. This is assumed to be the explanation for the number of graduates being over 9,000 for the years when the eighth grade work was given while it is less than 6,000 for the years when the seventh grade work was given.

In order to get some figure representative of the average percentage which the number of graduates is of the number enrolled it is necessary to take the average for two successive years. Because the data for the school year 1917-18 are not available, the average for the years 1916-17 and 1915-16 has been taken, and will be used in this discussion hereafter as representing the percentage of graduates for the years 1916-17, and 1917-18.

For convenience in reference the percentage relationship of the number of graduates to the number enrolled for the years 1913-1917 inclusive has been computed, Table 14, page 53. It is shown by these figures that the percentages vary from 1.34 per cent in 1913 to 2.90 per cent in 1917. The average for the years 1915-16 and 1916-17 is 2.25 per cent.

This means that for the two school years 1915-16, and 1916-17, two and one-fourth students out of every one hundred enrolled, finished the course. The average for the two preceding years is 2.21 per cent and because the variation is so slight the 2.25 per cent obtained as the average for 1915-16 and 1916-17 seems a very reliable ratio to be used throughout this discussion.

Summary

The number of graduates has increased regularly since 1913.

The number for 1916-17 is about twice the number for 1913.

The percentage relationship of the number of graduates to the enrollment has increased from 1.34 per cent in 1912-13 to 2.90 per cent in 1916-17.

The average percentage for 1915-16 and 1916-17 is 2.25; that is, on an average two and one-fourth out of every one hundred pupils enrolled in 1915-16 and 1916-17 finished the course and received the diploma.

CHAPTER X

ENROLIMENT - NORMAL AGE, BELOW NORMAL AGE, AND ABOVE NORMAL AGE

The school laws of Missouri provide that children may legally enroll as members of the public schools of the state upon becoming six years of age. A glance at Table 5, page 17, shows that as many pupils of this age are enrolled in the first grade as of any other two ages. The age of six stands out prominently as the age that children enter the Missouri rural schools.

The State Course of Study is based upon the assumption that children will make a grade each year after entering school, and that eight years will be required to complete the work of the course.

From these statements it may be inferred that a child should enter school sometime between the sixth and seventh birthdays, being enrolled as six years of age, and that he is expected to make a grade each year thereafter until the common school course is completed. Such a child will be of normal age throughout his common school career, and this

TABLE 15 NORMAL AGE - BY GRADES
(Definition of Normal Age)

Normal age for Grade I					Over 6 years up to 7				
"	"	"	"	II	"	7	"	"	" 8
"	"	"	"	III	"	8	"	"	" 9
"	"	"	"	IV	"	9	"	"	" 10
"	"	"	"	V	"	10	"	"	" 11
"	"	"	"	VI	"	11	"	"	" 12
"	"	"	"	VII	"	12	"	"	" 13
"	"	"	"	VIII	"	13	"	"	" 14

statement will be taken as our definition of normal age. All children younger than those described will be discussed as "under age" or "accelerated," and all children older as "over age" or "retarded."

Table 15, page 58, will be convenient for reference concerning "normal Age" for the various grades.

Table 16, page 60, taken from the age-grade census table on page 17, shows the number and percentage of normal age, below normal age or retarded, and above normal age or accelerated, pupils enrolled in the rural schools of Missouri. It reveals the fact that only 25 per cent of the pupils enrolled in the rural schools of the state are of normal age, that 10 per cent are under normal age or accelerated, and that 63 per cent are over normal age or retarded. This means that one pupil out of four, on an average, enters and progresses through school as is expected, and that of the other three-fourths six fall below the standard set to every one that exceeds it. The startling information lies in the fact that almost two-thirds (63.7 per cent) of all the pupils enrolled are below normal age or retarded.

TABLE 16 - NORMAL AGE, BELOW NORMAL AGE, ABOVE NORMAL AGE
(Basis 10,000 Pupils Enrolled)

Grades & Total	I	II	III	IV	V	VI	VII	VIII	TOTAL
Total No.	2247.4	1232.1	1295.1	1245.0	1120.6	993.2	943.2	923.4	10000.0
Normal) No.	871.2	330.7	330.9	268.1	228.4	195.1	175.3	162.2	2561.9
Age) %	38.8	26.9	25.5	21.5	20.4	19.6	18.6	17.6	25.6
Below) No.	356.0	123.7	109.5	127.7	97.2	99.8	79.3	74.9	1068.1
Normal) Age) %	15.8	10.0	8.5	10.3	8.7	10.1	8.4	8.1	10.7
Above) No.	1020.2	777.7	854.7	849.2	795.0	698.3	688.6	686.3	6370.0
Normal) Age) %	45.4	63.1	66.0	68.2	70.9	70.3	73.0	74.3	63.7

The first perpendicular column reads: Of 2247.4 enrolled in grade one 871.2 or 38.8 per cent are of normal age, 356.0 or 15.8 per cent are below normal age, and 1020.2 or 45.4 per cent above normal age.

DIAGRAM 11 - BELOW NORMAL AGE, OF
NORMAL AGE, ABOVE NORMAL AGE

(Based on Table 16, page 60)

DIAGRAM 12 - PERCENTAGE OF ENROLLMENT BELOW,
OF, AND ABOVE NORMAL AGE IN EACH GRADE

DEPARTMENT OF ENGINEERING, UNIVERSITY OF MO.

Percent

Below Normal Age
Of Normal Age
Above Normal Age

[Based on Table 16, page 60]

PLATE A - FOR SALE BY THE UNIVERSITY CO-OPERATIVE STORE, COLUMBIA, MO.

The undeniable discrepancy between what children actually do in school and what they are expected to do is strong evidence of the inefficiency of the Missouri rural school system; and when this evidence is combined with the very great grade-range by ages, with the extreme age-range by grades, and with the low percentage of graduates the evidence is too conclusive to be satisfied by oratorical enthusiasm for the "Little Red School House." The boys and girls in the country districts are not being educated. The great majority of them do not get even the essentials of a common school education.

In the appendix, pages 6 and 7, will be found age-grade census tables for two studies similar to this one. The first is from a study of the rural schools of South Dakota, made by the Bureau of Education, Washington, D. C., and furnished by Harold W. Foght.⁵ The second is from a study by C. L. Phelps of 292 rural schools in California and published in the April, 1918 number of "Educational Administration and Supervision."⁶

(5) The full report is now being prepared for publication.

(6) Phelps, Educational Administration and Supervision, v. 4, no. 4, 1918, pp. 199-208.

TABLE 17 - COMPARISON OF NORMAL-AGE, BELOW-NORMAL-AGE,
AND ABOVE-NORMAL-AGE ENROLLMENT OF MISSOURI,
SOUTH DAKOTA, CALIFORNIA, AND ILLINOIS STUDIES.

	MISSOURI			SOUTH DAKOTA			CALIFORNIA			ILLINOIS	
	Below:	At	Above	Below:	At	Above	Below:	At	Above	Above	
I	15.8	38.8	45.4	17.1	47.3	35.6	0	49.7	50.3	30.1	
II	10.0	26.9	63.1	15.8	38.7	45.5	4.7	34.7	60.6	41.8	
III	8.5	25.5	66.0	15.7	35.5	48.8	5.9	29.5	64.6	57.3	
IV	10.3	21.5	68.2	15.1	32.4	52.5	6.9	26.2	67.2	55.2	
V	8.7	20.4	70.9	15.1	30.0	54.9	6.3	24.3	69.4	63.5	
VI	10.1	19.6	70.3	15.3	25.6	59.1	6.4	22.2	71.4	64.2	
VII	8.4	18.6	73.0	10.7	24.7	64.6	5.4	20.8	73.8	66.7	
VIII	8.1	17.6	74.3	14.8	22.6	62.6	5.0	21.6	73.4	58.2	

In Missouri the enrollment in the first grade is distributed 15.8 per cent below normal age, 38.8 per cent at normal age, and 45.4 per cent above normal age; in the second grade, 10.0 per cent below normal age, etc.

The Illinois study is devoted to the above-normal-age or retarded children and reports all others as of normal age. Hence only the data for the above-normal-age group is adapted to the use of this study.
(7) Gaylord, Ret. and Elim., etc., Psychological Clinic, v. 3, 1910, pp.79-82.

Table 17, page 64, shows the conditions in Missouri, in general characteristics, so like those in other states as to suggest that our study is accurate and the data reliable. The absence of enrollment in the below normal-age group of grade one for California is evidence that children do not start to school in this state until they are of legal age. This is probably the explanation of the small percentage of below-normal age pupils in all grades for California. A more detailed comparison will be found in connection with the discussions of later chapters.

Summary

25.6 per cent of the pupils in Missouri rural schools enter and progress through the course according to expectation.

One out of every ten is ahead of expected classification.

63.7 per cent have entered late or have failed to make the progress expected and so have fallen behind and become members of the retarded group.

The general similarity of conditions in Missouri to conditions in South Dakota, California, and Illinois is evidence that our data are fairly representative.

Comparison shows that educational conditions in Missouri are not so good as in these other states.

CHAPTER XI

THE NORMAL-AGE GROUP

In age-grade census studies of this kind the children above normal age have received practically all the consideration. This is due to the fact that there is such a preponderance of over-age pupils. But since the normal-age group represents those children who are doing the work according to schedule, a careful study of the members of this group will yield more valuable information than a study of either the under-age group or the over-age group. It is impossible, with the data at hand, to even begin such a study, although certain general facts may be observed. The normal-age group constitutes 25.6 per cent, or a little more than one-fourth, of all pupils enrolled. Only one child in four is doing the work at the time the course presumes it will be done. This shows how seriously the work of these schools falls below standard.

Table 18, page 68, shows the grade distribution of normal-age pupils. The enrollment, disregarding that for grade one, begins dropping off

TABLE 18
GRADE DISTRIBUTION OF NORMAL AGE PUPILS
(Basis 10,000 enrolled)

Grade	Number of Normal Age	Per Cent of Normal Age
I	871.2	38.8
II	330.7	26.9
III	330.9	25.5
IV	268.1	21.5
V	228.4	20.4
VI	195.1	19.6
VII	175.3	18.6
VIII	162.2	17.6
Total	2561.9	25.6

In grade one there are 87.2 pupils out of every 10,000 who are below the normal age for the grade which number is 38.8 per cent of the total enrollment of grade one, etc.

DIAGRAM 13 - THE NORMAL-AGE GROUPS, MISSOURI, SOUTH DAKOTA, AND CALIFORNIA

(Based on Table 17)

DEPARTMENT OF ENGINEERING, UNIVERSITY OF MO.

PLATE A - FOR SALE BY THE UNIVERSITY CO-OPERATIVE STORE, COLUMBIA, MO.

at grade four and by the time the eighth grade has been reached the enrollment is only half that of grade two.

There are 162.2 normal-age pupils in the eighth grade and since there are only 225 graduates for each 10,000 pupils enrolled it is possible that this normal-age group might furnish 72.1 per cent of the graduates.

The normal-age enrollment in Missouri as compared with that in South Dakota and California is shown by Diagram 13, page 69. Missouri falls below both California and South Dakota. Reduced to percentages of enrollment the figures are:

Missouri.....	25.6 per cent
California.....	31.2 per cent
South Dakota.....	33.6 per cent.

Summary

Only 25 per cent of the children in the rural schools of Missouri are of normal age.

There are less than half as many normal-age pupils in grade eight as in grade two.

There are 162.2 normal-age pupils out of every 10,000 enrolled in the eighth grade and since there are only 225 graduates to each 10,000 enrolled it is possible for the normal-age group to furnish over 70 per cent of the members of the graduating class.

The percentage of normal-grade enrollment for Missouri is less than that for California and only three-fourths that of South Dakota.

CHAPTER XII

THE BELOW-NORMAL-AGE GROUP

Like the normal-age group, the below-normal-age group has been neglected in consideration of the above-normal-age group. Because this group includes those who have been able to do even more than has been planned, the pupils who have unusual ability are most liable to be found here. Not because we owe any more to the children of this group, but because from them will come most of the leaders of tomorrow, they should not be neglected. Table 19, page 73, shows the distribution of under-age pupils by age and grade.

Since we know nothing about the ability of the 355.9 pupils in grade one who have entered school at five years of age and who have had no chance for selective classification, this number of the 972.6 who are one year ahead of grade ought not to be considered seriously as being below normal age. Making this deduction we have remaining 616.7 pupils of every 10,000 enrolled who are below normal age after one or more promotions. The number one year below

TABLE 19 - DISTRIBUTION OF UNDER AGE PUPILS
BY GRADE AND NUMBER OF YEARS UNDER AGE
(Basis 10,000 Enrolled)

Under Age	I	II	III	IV	V	VI	VII	VIII	TOTAL
1 Year	355.9	119.1	100.2	108.0	80.4	83.4	66.5	59.1	972.6
2 "	-----	4.6	7.8	17.0	14.2	14.7	11.2	12.0	81.5
3 "	-----	-----	1.4	2.8	2.6	1.7	.4	3.9	12.8
4 "	-----	-----	-----	---	-----	-----	-----	-----	-----
5 "	-----	-----	-----	---	-----	-----	1.2	---	1.2
TOTAL	355.9	123.7	109.4	127.8	97.2	99.8	79.3	75.0	1068.1

Of the children one year under normal age 355.9 are in grade one, 119.1 in grade two, etc.

normal age decreases from grade to grade from the second to the eighth, in about the same proportion as that of normal age, the number in the eighth grade being half the number in the second. For every 10,000 children enrolled there are 81.5 two years ahead of grade and 12.8 three years ahead of grade. The figures show a tendency on the part of these accelerates to hold up strong through the upper grades. While there is only one of these pupils to every one hundred enrolled, because of what they have done, they constitute a most interesting group. The further fact that most of them are to be found in the upper four grades gives this group added significance. Not including the 355.9 five-year-olds, there are 712.2 pupils in every 10,000 who are one or more years below normal age, which means that they are one or more years ahead of grade. Since there are only 225 graduates for every 10,000, it would be possible for this group to furnish a high percentage of those who complete the course of study. Seventy-five of these under-age pupils are in the eighth grade, and from this it is seen that 30 per cent of the graduates might come from the under-age group.

Diagram 14, page 75, shows comparatively the percentage of under-age pupils in Missouri, South Dakota, and California. No children under six, the

DIAGRAM 14 - THE BELOW-NORMAL-AGE GROUP,
MISSOURI, SOUTH DAKOTA, AND CALIFORNIA

(Based on Table 17)

DEPARTMENT OF ENGINEERING, UNIVERSITY OF MO.

PLATE A - FOR SALE BY THE UNIVERSITY CO-OPERATIVE STORE, COLUMBIA, MO.

legal school age, are enrolled in the California schools studied. This probably is the explanation why there are no accelerated pupils in grade one, and probably explains why the California curve for accelerated pupils falls so low.

It is worthy of consideration that the acceleration in Missouri rural schools is only about two-thirds the acceleration in the South Dakota rural schools. Reduced to percentages of the enrollment, the relative acceleration in each case is easily compared.

Missouri.....	10.7
California.....	4.6
South Dakota.....	15.2

Summary

Out of every 10,000 pupils enrolled in Missouri rural schools 616.7, exclusive of those in grade one, are found in the below-normal-age group.

This group holds up strong in the upper grades and its eighth grade enrollment is 30 per cent of the number of graduates, thus making it possible for more than 25 per cent of the graduates to come from this small group.

The Missouri under-age group is a higher percentage of the total enrollment than that of California, but only two-thirds that of South Dakota.

CHAPTER XIII

THE ABOVE-NORMAL-AGE GROUP

Table 5, page 17, shows that for every 10,000 pupils enrolled in the rural schools of Missouri 6,370, or 63.7 per cent, are above normal age; that is, are older than they should be for the grades in which they are enrolled. These boys and girls have fallen behind, some of them a year, some two years, and some from six to eight years. The figures indicate that out of every three pupils enrolled two have fallen below the normal-age standard of the schools of the state.

Because of the great amount of over-ageness and the inefficiency which it indicates, this group of pupils has received much careful study from officials of city schools and from national organizations devoted to the advancement of education.

Diagram 15, page 80, shows that retardation exists in about the same amount in the rural schools of Missouri as in those of California. There was much less retardation in the rural schools of Bureau

TABLE 20 - DISTRIBUTION OF OVER-AGE PUPILS
BY GRADE AND NUMBER OF YEARS OVER AGE
(Basis of 10,000 Enrolled)

Over	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade
Age	I	II	III	IV	V	VI	VII	VIII	TOTAL	
1 year	519.7	347.5	333.5	305.4	267.2	237.1	233.0	218.4	2461.8	
2 "	258.7	195.5	236.3	232.8	233.0	203.3	219.4	208.0	1787.0	
3 "	121.2	117.1	135.7	147.2	154.2	145.3	131.2	144.0	1095.9	
4 "	60.4	54.6	82.3	92.0	79.2	68.8	68.9	69.8	576.0	
5 "	27.0	34.6	36.0	43.6	38.5	31.8	24.2	31.8	267.5	
6 "	16.0	17.1	20.7	20.0	16.5	8.1	9.5	10.0	117.9	
7 "	7.8	7.8	5.7	6.3	4.3	2.6	2.1	4.2	40.8	
8 "	4.1	2.7	3.0	1.5	.9	.8	.3	---	13.3	
9 "	2.7	.6	1.4	.2	.9	.5	---	---	6.3	
10 "	2.6	.2	.2	.1	.3	---	---	---	3.4	
TOTAL	1020.2	777.7	854.8	849.1	795.0	698.3	688.6	686.2	6369.9	

Of the pupils one year over age 519.7 are in grade one, 347.5 in grade two, etc.

DIAGRAM 15 - THE ABOVE-NORMAL-AGE GROUP,
MISSOURI, SOUTH DAKOTA, CALIFORNIA, AND ILLINOIS

(Based on Table 17)

DEPARTMENT OF ENGINEERING, UNIVERSITY OF MO.

PLATE A - FOR SALE BY THE UNIVERSITY CO-OPERATIVE STORE, COLUMBIA, MO.

County, Illinois, in 1909 than there is in the rural schools of Missouri at the present time. In the rural schools of South Dakota the amount of retardation is very much less than in the rural schools of Missouri. Reduced to percentages of enrollment, the amount of retardation in each case is as follows:

Missouri.....	63.7 per cent
California.....	64.2 per cent
Illinois.....	53.9 per cent
South Dakota.....	51.2 per cent.

Summary

63.7 per cent of all pupils enrolled in the rural schools of Missouri are above normal age.

The percentage of over-age pupils in Missouri rural schools is about the same as that in the rural schools of California but less than that found in the rural schools of Illinois and South Dakota.

CHAPTER XIV

RETARDATION

"Children who are older than they should be for the grades they are in are considered retarded. Thus used, the term designates a condition and is applied with equal propriety to those who are over-age on account of slow progress, and to those who have progressed normally but entered school late."⁸ While the causes are stated where evident this kind of a study devotes itself to ascertaining and stating the facts regarding the existing conditions. Just here we are interested in the existence, number, and distribution of retarded pupils.

The age and grade distribution of the 6369.9 over-age or retarded pupils out of every 10,000 enrolled is shown in Table 21, page 84. This table shows that 6369.9 pupils out of every 10,000 are retarded one year or more. That is, 63.69 per cent of all pupils enrolled are retarded anywhere from one to ten years. Table 22, page 85, which is derived from Table 21, shows that the percentage of

(8) Ayers-Laggards' In Our Schools.

TABLE 21 - RETARDATION BY GRADE AND BY NUMBER OF YEARS RETARDED

No. : Years : R't'd. :	Grade : I :	Grade : II :	Grade : III :	Grade : IV :	Grade : V :	Grade : VI :	Grade : VII :	Grade : VIII :	Grade : TOTAL :
1 :	519.7 :	347.5 :	333.5 :	305.4 :	267.2 :	237.1 :	233.0 :	218.4 :	2461.8 :
2 :	258.7 :	195.5 :	236.3 :	232.8 :	233.0 :	203.3 :	219.4 :	208.0 :	1787.0 :
3 :	121.2 :	117.1 :	135.7 :	147.2 :	154.2 :	145.3 :	131.2 :	144.0 :	1095.9 :
4 :	60.4 :	54.6 :	82.3 :	92.0 :	79.2 :	68.8 :	68.9 :	69.8 :	576.0 :
5 :	27.0 :	34.6 :	36.0 :	43.6 :	38.5 :	31.8 :	24.2 :	31.8 :	267.5 :
6 :	16.0 :	17.1 :	20.7 :	20.0 :	16.5 :	8.1 :	9.5 :	10.0 :	117.9 :
7 :	7.8 :	7.8 :	5.7 :	6.3 :	4.3 :	2.6 :	2.1 :	4.2 :	40.8 :
8 :	4.1 :	2.7 :	3.0 :	1.5 :	.9 :	.8 :	.3 :	----	13.3 :
9 :	2.7 :	.6 :	1.4 :	.2 :	.9 :	.5 :	----	----	6.3 :
10 :	2.6 :	.2 :	.2 :	.1 :	.3 :	----	----	----	3.4 :
TOTAL :	1020.2 :	777.7 :	854.8 :	849.1 :	795.0 :	698.3 :	688.6 :	686.2 :	6369.9 :

Of the pupils retarded one year there are 519.7 in grade one, 347.5 in grade two, etc.

TABLE 22 - PERCENTAGE OF RETARDATION BY GRADES

GRADE	I	II	III	IV	V	VI	VII	VIII
Total Enrollment	2247.4	1232.1	1295.1	1245.0	1120.6	993.2	943.2	923.4
Retarded	1020.2	777.7	854.7	849.2	795.0	698.3	688.6	686.3
Percentage	45.4	63.1	66.0	68.2	70.9	70.3	73.0	74.3

Out of every 2247.4 pupils enrolled in grade one 1020.2 or 45.4 per cent are retarded, etc.

retarded pupils in the grades starts at 45 per cent in grade one, jumps to 63 per cent in grade two, and then increases rather regularly from grade to grade until a percentage of 74 per cent is reached in grade eight.

The combining of a few figures taken from the right-hand column of Table 21, page 84, shows that there are 1025.2 pupils in every 10,000 who are retarded four years or more, and that there are 3908.1 pupils in every 10,000 who are retarded two years or more.

Thus it appears that 10 per cent of all pupils enrolled are retarded four years or more; that one pupil out of every ten is four or more years behind this expected classification. His loss of time is half that which is assumed to be necessary to complete the course. If he is thirteen years of age he is in the fourth grade when he should be in grade eight. If he happens to be ten years old he is in grade one when he should be in grade five, and he will be thirteen before he enters the fifth grade even though his future promotion be normal. Thirteen is the age when the pupils begin leaving the Missouri rural schools, as shown by Diagram 3, page 22, and

TABLE 23 - LOSS OF TIME DUE TO RETARDATION
(Based on Table 21, page 84)

Number Pupils Retarded	Number Years Retarded	Number Pupil-Years Lost
2461.8	1	2461.8
1787.0	2	3574.0
1095.9	3	3287.7
576.0	4	2304.0
267.5	5	1337.5
117.9	6	707.4
40.8	7	285.6
13.3	8	106.4
6.3	9	56.7
3.4	10	34.0
Total number of pupils retarded		6,369.9
" " "	pupil-years lost	14,155.1
Average loss for retarded pupils		2.22 years
" " "	all pupils enrolled	1.42 years

the chance of his remaining the four years necessary to complete a common school education, is slight.

Four pupils out of every ten are two or more years below the normal grade classification. Out of every ten pupils four are retarded to the extent of at least one-fourth of the time necessary to complete the course. These pupils are or will be fifteen years old when they reach the eighth grade and since the period of rapid exit from the schools has been in progress for two years many of them will not remain to get a common school education.

The average loss of time for retarded pupils is 2.22 years and for all pupils enrolled it is 14.2 years. The total loss of time is sufficient to give four years of high school training to 3750 out of every 10,000 pupils, or to give one and one-half years of high school training to each pupil enrolled.

This last consideration is based upon the assumption that children stay in school until they complete the course. The figures show that the pupils progress through the schools at the rate of nine and one-half years of time to eight years of work. This is inefficient and extravagant but it is not nearly so bad as actual existing conditions. The fact is that most of these retarded pupils never get

a common school education. They quit school before completing the common school course of study.

Summary

63.69 per cent of all pupils enrolled are retarded.

The percentage of students in each grade who are over age jumps from 45 per cent in grade one to 63 per cent in the second grade and then increases gradually to 74 per cent in the eighth grade.

40 per cent of all pupils are retarded two or more years and of these 25 per cent (10 per cent of the total enrollment) are retarded four years or more.

The time lost by the members of the retarded group averages 1.42 years for each child enrolled or 2.22 years for each of those who are retarded.

Because children leave school rapidly after thirteen years of age retardation must be the cause of many children leaving the rural schools before completing a common school education.

The retarded children are distributed from grade one to grade eight and it is therefore practically impossible to compute the economic loss due to the

extra years spent in schools. But neglecting what the children might earn during these extra years spent in school the loss due to feeding, housing, and clothing them runs into large figures.

CHAPTER XV

RETARDATION BY MODAL AGES AND MEDIAN AGES

Diagram 16, page 93, shows the normal progress curve, the modal age curve, and the median age curve. The normal-age curve shows the first grade at six years of age, the second at seven, the third at eight, etc. It represents school entrance at six and annual promotion at the rate of one grade per year. The modal-age curve shows promotion as based upon the largest age group in each grade. This curve progresses irregularly as follows: first grade, six years of age; second grade, eight; third grade, eight; fourth grade, ten; fifth grade, ten; sixth grade, twelve; seventh grade, thirteen; eighth grade, fourteen. The median-age curve is somewhat more regular than the modal-age curve. It starts at six, rises to eight in grade two, and proceeds regularly rising one year with each additional grade until the seventh grade is reached. In passing on to grade eight it rises two years, closing at fifteen years of age.

The normal-age curve is the curve that shows

DIAGRAM 16 - NORMAL AGES, MODAL AGES, AND MEDIAN AGES BY GRADES

(Based on Table 5)

DEPARTMENT OF ENGINEERING, UNIVERSITY OF MO.

PLATE A - FOR SALE BY THE UNIVERSITY CO-OPERATIVE STORE, COLUMBIA, MO.

normal progress through the grades. The modal-age curve shows that the children of the largest year-age-group in grades two, four, six, seven, and eight are one year older than the normal ages for these grades. This indicates retardation of one year each for five grades for the largest year-age-group in each grade. The median-age curve shows that the child, which has as many members of his grade who are older as there are who are younger, in each of grades two, three, four, five, six, and seven is one year above the normal age, for his grade, and that this child for grade eight is two years above his normal age. Thus the curve of medians shows an average retardation of one year for each of the eight years.

Summary

The median-age curve on page 93 indicates that the median child is one year behind his normal grade in the school in all grades after the first and two years behind in the eighth.

The modal-age curve indicates that the children of the largest year-age group in each grade are one year behind the normal age for their grade in all grades after the first except the third and fifth.

The central tendency indicated by the median-age and modal-age curves points conclusively to the fact that retardation exists so generally that the whole group of students may be said to be moving through the schools one year behind the proposed time schedule. Practice and plan vary to the extent of one year.

CHAPTER XVI

PROGRESS THROUGH THE GRADES

The curve of medians on page 93 shows that the eighth grade pupil of median age is fifteen years old while the normal age for a pupil in this grade is only thirteen. Eight years is the normal time for completing the work of the eight grades and two years more are required for the median pupil. If we assume the normal rate of progress to be 100 per cent, the actual rate of progress as based upon the time required for the median pupil to complete this work is obtained by dividing the normal time necessary for completing the course by the median time. Since the normal time is eight years and the median time ten years, the rate of progress is 80 per cent.

Summary

On the basis of medians the pupils progress through the rural schools of Missouri at a rate equal to 80 per cent of the normal rate of progress.

CHAPTER XVII

THE ABOVE-NORMAL-GRADUATION-AGE GROUP

Children who graduate at the normal graduation age are enrolled as of the age at the time of entering school in September, which is thirteen. All pupils enrolled who are fourteen years of age or older are included in the group above normal graduation age. Table 24, page 99, shows the distribution of these pupils who are above the normal graduation age. 1663.7 pupils in every 10,000, or 16 $\frac{2}{3}$ per cent, are above normal graduation age. These pupils are of normal high-school age or older. Since the great majority of these pupils are in the upper grades it is a safe conclusion that they are capable of doing high school work.

The number of pupils in the rural schools of Missouri who are of high-school age assumes added significance when compared with the corresponding groups in city schools. Table 25, page 101, makes a comparison with the schools of Maryland, in cities having a population of 2500 or more, exclusive of

TABLE 24 - DISTRIBUTION OF PUPILS ABOVE NORMAL GRADUATION AGE
(Basis 10,000 Enrolled)

Age Above	Gr. I	Gr. II	Gr. III	Gr. IV	Gr. V	Gr. VI	Gr. VII	Gr. VIII	TOTAL
Nor. Grad:									
1 Year	4.1	7.8	20.7	43.6	79.2	145.3	219.4	218.4	738.5
2 "	2.7	2.7	5.7	20.0	38.5	68.8	131.2	208.0	427.6
3 "	1.4	.6	3.0	6.3	16.5	31.8	68.9	144.0	322.5
4 "	.8	.2	1.4	1.5	4.3	8.1	24.2	69.8	110.3
5 "	.4	---	---	.2	.9	2.6	9.5	31.8	45.4
6 "	---	---	.2	---	.9	.8	2.1	10.0	14.0
7 "	---	---	---	.1	.3	.5	.3	4.2	5.4
TOTAL	9.4	11.3	31.0	71.7	140.6	257.9	455.6	686.2	1663.7 or 16 2/3%

On the basis of an enrollment of 10,000 pupils, those above the normal graduation age are distributed as follows: One year above normal-graduation age, 4.1 in grade one, 7.8 in grade two, 20.7 in grade three, etc.

Baltimore. Here, as in the rural schools of Missouri, the normal graduation age is thirteen, and the pupils above thirteen who are enrolled in the schools, including the high schools, constitute 21.6 per cent of the total enrollment as compared with 16.6 per cent in the rural schools of Missouri where the educational privileges stop with the eighth grade. (This study of Missouri rural schools is confined to schools having only one teacher.) While the over thirteen-year-old group in the Missouri rural schools is only 76.9 per cent of the same group in the Maryland schools it is 176.5 per cent of the number of students actually found enrolled in the Maryland high schools. The second comparison found in the table is with the schools of Kansas City, Missouri. Here the elementary school course is limited to the work of seven grades and, according to our definition of normal age (page 58), the normal graduation age is twelve. Using the same age standard in the rural schools of the state as in Kansas City we find that the above-normal-graduation-age group in the Kansas City schools is 22.6 per cent of the total enrollment, while the normal-graduation-age group is 26.5 per cent of the total enrollment in the country schools. The rural school percentage

TABLE 25 - THE ABOVE-NORMAL-GRADUATION-AGE GROUP COMPARED

Schools	Year	Total No. Pupils (White)	Normal Grad. Age	No. of	% of	No. in H. S.	% in H. S.
Maryland City Schools	Census of 1910	17650	Up to and including 13	3733.0	21.6	1660	9.4
Missouri Rural Schools	1916-17: 1917-18:	10000	Up to and including 13	1663.7	16.6		
Kansas City Schools	1915-16:	45022	Up to and including 12 *	10256	22.6	5695	12.4
Missouri Rural Schools	1916-17: 1917-18:	10000	Up to and including 12 - the Kansas City Standard	2648.3	26.5		

* Kansas City has a seven grade elementary school course. The normal elementary school graduation age is determined by the rule laid down on page of this study.

(9) Flexner and Bachman, Public Education in Maryland, page 86.

(10) Forty-fifth Annual Report, Board of Education, Kansas City, Mo., pp. 131, 144, 145.

of above-normal-graduation-age pupils not only exceeds that for Kansas City, including her high school enrollment, but is 213.8 per cent of the high school enrollment.

The conclusions of this study are too evident to be denied. The country children of high-school age go to school as well as children of corresponding ages in the cities. It cannot be said that country children will not go to school after they are of high school age; they are already in school. The fact that these boys and girls are retarded is no argument against them. Those that stay in school to these advanced ages have ability to do school work and are interested in getting an education; otherwise, they would not be enrolled as members of the schools.

Summary

16 $\frac{2}{3}$ per cent of all pupils enrolled in the rural schools of Missouri are above normal graduation age. These pupils have passed the minimum normal high school age.

The ratio of the above-normal-graduation-age pupils to the total enrollment in Missouri rural schools is 1.76 times the ratio of the high school pupils to the total enrollment in the cities of Maryland as shown by the census of 1910.

Using the Kansas City standard for normal graduation age for elementary schools, the ratio of the number of pupils above that age to the total enrollment in the rural schools of the state is .265 as compared with .226 for the Kansas City schools with the high school enrollment included. The percentage of these pupils in the rural schools is more than two and one-sixth times the percentage of high school enrollment in Kansas City.

CHAPTER XVIII

ELIMINATION

Reference to the first horizontal column of totals in the composite table, page 17, shows the number of pupils in each grade on the basis of an enrollment of 10,000.

TABLE 26 - ENROLLMENT BY GRADES

Grade I	Enrollment	2,247.4
" II	"	1,232.1
" III	"	1,295.1
" IV	"	1,245.0
" V	"	1,120.6
" VI	"	993.2
" VII	"	943.2
" VIII	"	<u>923.4</u>
TOTAL		10,000.0

By computation we find that there are 1,015.3 fewer pupils in grade two than in grade one. Grade three shows an increase of sixty-three, and thereafter each successive grade enrollment is less than the preceding by differences ranging from 19.8 to

TABLE 27 - ENROLLMENT BY GRADES, WITH PER CENT EACH
GRADE-ENROLLMENT IS OF THE NUMBER OF BEGINNERS, AND PER-
CENTAGE ELIMINATION FOR EACH GRADE AFTER THE SECOND.

: Beg. :	I :	II :	III :	IV :	V :	VI :	VII :	VIII :	Graduates :
: 1440 :	: 2247.4 :	: 1232.1 :	: 1295.1 :	: 1245.0 :	: 1120.6 :	: 993.2 :	: 943.2 :	: 923.4 :	: 225 :
: 100 :	: 156.0 :	: 85.6 :	: 89.9 :	: 86.5 :	: 77.8 :	: 69.0 :	: 65.6 :	: 64.1 :	: 15.6 :
: Percentage of loss :			: 10.1 :	: 13.5 :	: 22.2 :	: 31.0 :	: 34.4 :	: 35.9 :	: 84.7 :

For every 10,000 pupils enrolled 1295.1 are in grade three. This number is 89.9 per cent of the number of beginners

DIAGRAM 17 - PERCENTAGE EACH GRADE ENROLLMENT
IS OF THE NUMBER OF BEGINNERS

(Based on Table 17)

127.4. By comparing the number of pupils in grade eight with the number in grade one, it is seen that retardation and elimination have produced a condition under which only two pupils out of every five ever reach the eighth grade. Table 27, page 105, shows the enrollment grade by grade, percentage each grade enrollment is of the number of beginners, and the percentage of loss from grade to grade after the second.

Diagram 17, page 106, shows the enrollment by grades contrasted with the number of beginners and with the number of graduates. The enrollment in grade one is a little over one and one-half times the number of beginners. All the other grades fall below. The third grade, after the first, makes the best showing with an enrollment equal to 90 per cent of the number of beginners while the eighth grade enrollment has fallen to 64 per cent. On the basis of the actual number of beginners 10.1 per cent of all pupils enrolled have been eliminated before reaching the third grade, 13.5 per cent before reaching grade four, almost one-fourth are gone before reaching grade five, 31.0 per cent before reaching grade six, more than one-third before reaching

grade seven. Two out of every five beginners have been eliminated before reaching the final elementary school grade and, if we base our conclusion on the number of graduates, 84.7 per cent are eliminated before completing the elementary school course of study.

A careful study of the age and grade figures indicates that age is a significant factor in the process of elimination. Children are not kept in the elementary schools, as a rule, long after they pass the age of thirteen. If, upon reaching the age of thirteen, many of them are in the lower grades, they will, in most cases, leave the public schools with little more than a familiarity with the lower grade work. Table 28, page 109, shows that there are more children enrolled in the eight-year-old group than in any other. This number, however, is only 73.7 per cent of the number of beginners. Beginning with the ten-year-old group the enrollment shows elimination with each succeeding group. At thirteen the elimination attracts attention and at fourteen it is marked. At fifteen a majority have left school and at seventeen only a few remain. Few of those eliminated have graduated. If the public schools of Missouri

TABLE 28 - PERCENTAGE EACH AGE ENROLLMENT
IS OF THE NUMBER OF BEGINNERS

Beginners	1440.0	Per cent of Beginners				100
5 years old	361.9	"	"	"	"	25.1
6 " "	1001.0	"	"	"	"	69.5
7 " "	971.4	"	"	"	"	67.5
8 " "	1061.0	"	"	"	"	73.7
9 " "	1013.8	"	"	"	"	70.4
10 " "	1046.1	"	"	"	"	72.6
11 " "	990.9	"	"	"	"	68.8
12 " "	984.6	"	"	"	"	68.4
13 " "	905.6	"	"	"	"	62.9
14 " "	738.5	"	"	"	"	51.3
15 " "	427.6	"	"	"	"	29.7
16 " "	322.5	"	"	"	"	22.4
17 " "	110.3	"	"	"	"	7.7
18 " "	45.4	"	"	"	"	3.2
19 " "	14.0	"	"	"	"	1.0
20 " "	5.4	"	"	"	"	.4
Graduates	225.0	"	"	"	"	15.6

DIAGRAM 18 - PERCENTAGE EACH YEAR-AGE ENROLLMENT IS OF THE NUMBER OF BEGINNERS
(Based on Table 9)

are to fulfill their function they must either give their pupils an elementary education by the time they are fourteen or make provision for keeping them in school a longer period of years.

The shaded portion of the diagram on page 110 is easy to interpret. But since the portions shaded blue represent separate studies and have no age-grade distribution, any attempt at comparison must be a matter of opinion. That the number of beginners will remain fairly constant from year to year seems a reliable assumption. Knowing that some children do not enter school until they are seven or eight years of age, or older, and that others are being eliminated by death and by being taken out of school, it is seen that the actual enrollment will be the resultant of the action of these influences upon the beginners for a series of years.

The modal-age-group seems the best point of attack. This is the largest of the year-age group. Previous to this age the entrance of pupils as beginners exceeded the loss by elimination, if we allow for the tendency of teachers to slight the odd-numbered ages in their reports. In this group are some children who are in school for the first time,

some who entered one year before, some two years before, and some who entered even three years before. Assuming that the number who enter as beginners after the eighth year is so small as to admit of its being omitted from consideration, it may be said that the difference between the eight-year-old enrollment and the number of beginners represents the elimination for the first three years of school life. If this be true, 26.3 per cent of those who ought to be found in the eight-year-old group have been eliminated.

Another suggestion of the existence of excessive elimination is to be found in the fact presented in Diagram 17, page 106. Here we find only a few more than half as many enrolled in grade two as in grade one, and, including the increase due to retardation which has a marked influence in piling up enrollment in the lower grades, no grade after the first has an enrollment as large as 90 per cent of the number of beginners.

Of those eight-year-old pupils enrolled in the modal-age group, 60 per cent have been eliminated before reaching the fifteenth year and 78.8 per cent of them leave the schools without

TABLE 29 - LOSS OF ENROLLMENT FROM YEAR TO YEAR
(Basis 10,000 Enrollment)

Ages	Enrollment	Loss, Year by Year
5	361.9	
6	1001.0	
7	971.4	29.6
8	1061.0	89.6 increase
9	1013.8	47.2
10	1046.1	32.3 increase
11	990.9	55.2
12	984.6	6.3
13	905.6	79.0
14	738.5	167.1
15	427.6	310.9
16	322.5	105.1
17	110.3	212.2
18	45.4	64.9
19	14.0	31.4
20	<u>5.4</u>	<u>8.6</u>
TOTALS	10,000	1117.5

DIAGRAM 19 - NUMBER OF PUPILS LESS IN EACH YEAR-AGE GROUP THAN IN THE PRECEDING

(Based on Table 5)

DEPARTMENT OF ENGINEERING, UNIVERSITY OF MO.

PLATE A -- FOR SALE BY THE UNIVERSITY CO-OPERATIVE STORE, COLUMBIA, MO.

completing the course.

Table 29, page 113, shows the number lost from the previous year at each year-age. The total of the losses, from year to year after the sixth, is 995.6. The fourteenth-year enrollment shows a loss of 25 per cent of the sixth year enrollment, the fifteenth a loss of 57 per cent, the sixteenth of 68 per cent, and the seventeenth a loss of 89 per cent. A few of those lost are accounted for by death, a few by changing to other schools, a few by graduation, and the remainder have dropped out without completing the course; they have been eliminated. They have gone out into the world without having received a common school education.

Summary

Excepting the first, the third is the modal-grade group. Ten per cent of the beginners have been eliminated from this group. The percentage of elimination increases with each succeeding grade. The eighth-grade enrollment shows an elimination of 35.9 per cent of the beginners, and the graduates an elimination of 84.7 per cent of the beginners.

The modal-age enrollment, at eight, shows an elimination of 26.3 per cent of the number of beginners. If present tendencies continue to prevail 78.8 per cent of those enrolled in the eight-year-old group will be eliminated before graduation.

The excess of elimination over the influence of retardation to supply its loss becomes noticeable at the age of thirteen and pronounced at fourteen.

The loss of pupils between the ages fourteen and fifteen is 138 per cent of the number of graduates.

CHAPTER XIX

EFFICIENCY

If the schools be judged by some business standard there is nothing more significant than a comparison of the finished product with the raw material. This study shows there are 225 graduated for each 1440 beginners. The quotient shows the survival-efficiency to be 15.6 per cent.

In Chapter XVI the median rate of progress was determined as 80 per cent. This figure may be taken to represent the progress-efficiency.

The product of the percentages representing the survival-efficiency and the progress-efficiency gives a single per cent that may be taken as a fairly reliable index of the efficiency of any system of schools. For the rural schools of Missouri the survival-progress efficiency is 12.48 per cent.

DIAGRAM 20 - COMPARISON OF GRADUATES AND BEGINNERS
(Basis 10,000 Enrolled)

Summary

The survival efficiency, as determined by dividing the number of graduates by the number of beginners, is 15.6 per cent.

The progress efficiency, as based upon median ages by grades, is 80 per cent.

The survival-progress efficiency for the rural schools of Missouri is 12.48 per cent.

CHAPTER XX

GENERAL SUMMARY

The general tendency in the rural schools of Missouri is for pupils to enter school early and to leave before completing the course.

Three-fourths of all pupils are enrolled in the first half of the school attendance-ages and only one and three-fourths per cent in the last fourth.

The enrollment is fairly constant for the ages six, seven, eight, nine, ten, eleven, and twelve.

The age enrollment shows a decided tendency to decrease after the age of twelve and at fourteen 25 per cent of those enrolled at twelve are gone. The number in the fifteen-year-old group is slightly more than half that in the fourteen-year-old group, and at seventeen the number enrolled is only one-fourth that at fifteen.

Of the sixteen year-age groups nine have pupils enrolled in each of the eight grades.

One-third of the beginners enter school before reaching the minimum legal age of six years.

Very few pupils are enrolled during the last four years of legal age.

One-third of the pupils enrolled in the rural schools of Missouri are outside the age limits set for compulsory attendance.

Over 70 per cent of those outside the compulsory attendance limits are below the compulsory attendance minimum age, and a little less than 30 per cent are above the compulsory attendance maximum age.

The number enrolled at fourteen, the last year of compulsory attendance, is less than three-fourths of the number enrolled at six, the first year of legal school age and two years prior to the first year of compulsory attendance.

The average year-age enrollment is higher for the two years below the compulsory attendance minimum than the average year-age enrollment for the seven years of compulsory attendance.

The loss of numbers at thirteen and fourteen shows the compulsory attendance law is not being effectively enforced.

Only 9.2 per cent of the pupils enrolled are

over fourteen years of age but this 9.2 per cent furnishes 50.7 per cent of pupils in the eighth grade, 25.0 per cent of pupils in the seventh grade, and 11.3 per cent of those in the sixth grade.

The enrollment in grade one is unusually large. The enrollment in the second largest grade is only 58 per cent of the first grade enrollment. This piling up of enrollment in grade one indicates unsatisfactory working conditions, poor classification, and probably a too high standard of promotion.

The second grade enrollment is less than that of either the first or the third. The progress from grade one to grade three is obstructed and a special study is needed to locate the cause of the obstruction.

The age-range for the different grades varies from eleven years in grade eight to fifteen years in grade three. This range is too great to admit of efficient work being done.

The educational birth rate as determined from the limited data tabulated is 14.4 per cent of the total enrollment.

The educational birth rate as determined by this

study is less than that obtained by the Thorndike formula and greater than that obtained by the Ayers formula.

The number of graduates has increased regularly since 1913.

The number for 1916-17 is about twice the number for 1913.

The percentage relationship of the number of graduates to the enrollment has increased from 1.34 per cent in 1912-13 to 2.90 per cent in 1916-17.

The average percentage for 1915-16 and 1916-17 is 2.25; that is, two and one-fourth out of every one hundred pupils enrolled in 1915-16 and 1916-17 finished the course and received the diploma.

25.6 per cent of the pupils in Missouri rural schools enter and progress through the course according to expectation.

One out of every ten is ahead of expected classification.

63.7 per cent have entered late or have failed to make the progress expected and so have fallen

behind and become members of the retarded group.

The general similarity of conditions in Missouri to conditions in South Dakota, California, and Illinois is evidence that our data are fairly representative.

Comparison shows that educational conditions in Missouri are not so good as in these other states.

Only 25 per cent of the children in the rural schools of Missouri are of normal age.

There are less than half as many normal-age pupils in grade eight as in grade two.

There are 162.2 normal-age pupils, out of every 10,000 enrolled, in the eighth grade and since there are only 225 graduates to each 10,000 enrolled it is possible for the normal-age group to furnish over 70 per cent of the members of the graduating class.

The percentage of normal-grade enrollment for Missouri is less than that for California and only three-fourths that of South Dakota.

Out of every 10,000 pupils enrolled in Missouri rural schools 616.7, exclusive of those in grade one, are found in the below-normal-age group.

This group holds up strong in the upper grades and its eighth grade enrollment is 30 per cent of the number of graduates, thus making it possible for more than 25 per cent of the graduates to come from this small group.

The Missouri under-age group is a higher percentage of the total enrollment than that of California, but only two-thirds that of South Dakota.

63.7 per cent of all pupils enrolled in the rural schools of Missouri are above normal age.

The percentage of over-age pupils in Missouri rural schools is about the same as that in the rural schools of California but less than that found in the rural schools of Illinois and South Dakota.

63.69 per cent of all pupils enrolled are retarded.

The percentage of students in each grade who are over age jumps from 45 per cent in grade one to 63 per cent in the second grade and then increases gradually to 74 per cent in the eighth grade.

40 per cent of all pupils are retarded two or more years and of these 25 per cent (10 per cent of

the total enrollment) are retarded four years or more.

The time lost by the members of the retarded group averages 1.42 years for each child enrolled or 2.22 years for each of those who are retarded.

Because children leave school rapidly after thirteen years of age retardation must be the cause of many children leaving the rural schools before completing a common school education.

The retarded children are distributed from grade one to grade eight and it is therefore practically impossible to compute the economic loss due to the extra years spent in schools. But neglecting what the children might earn during these extra years spent in school the loss due to feeding, housing, and clothing them runs into large figures.

The median-age curve on page 93 indicates that the median child is one year behind his normal grade in the school in all grades after the first and two years behind in the eighth.

The modal-age curve indicates that the children of the largest year-age group in each grade are one year behind the normal age for their grade

in all grades after the first except the third and fifth.

The central tendency indicated by the median-age and modal-age curves points conclusively to the fact that retardation exists so generally that the whole group of students may be said to be moving through the schools one year behind the proposed time schedule. Practice and plan vary to the extent of one year. .

On the basis of medians the pupils progress through the rural schools of Missouri at a rate equal to 80 per cent of the normal rate of progress.

16 $\frac{2}{3}$ per cent of all pupils enrolled in the rural schools of Missouri are above normal graduation age. These pupils have passed the minimum normal high school age.

The ratio of the above-normal-graduation-age pupils to the total enrollment in Missouri rural schools is 1.76 times the ratio of the high school pupils to the total enrollment in the cities of Maryland as shown by the census of 1910.

Using the Kansas City standard for normal graduation age for elementary schools, the ratio

of the number of pupils above that age to the total enrollment in the rural schools of the state is .265 as compared with .226 for the Kansas City schools with the high school enrollment included. The percentage of these pupils in the rural schools is more than two and one-sixth times the percentage of high school enrollment in Kansas City.

Excepting the first, the third is the modal-grade group. 10 per cent of the beginners have been eliminated from this group. The percentage of elimination increases with each succeeding grade. The eighth-grade enrollment shows an elimination of 35.9 per cent of the beginners, and the graduates an elimination of 84.7 per cent of the beginners.

The modal-age enrollment, at eight, shows an elimination of 26.3 per cent of the number of beginners. If present tendencies continue to prevail 78.8 per cent of those enrolled in the eight-year-old group will be eliminated before graduation.

The excess of elimination over the influence of retardation to supply its loss becomes noticeable at the age of thirteen and pronounced at fourteen.

The loss of pupils between the ages fourteen

and fifteen is 138 per cent of the number of graduates.

The survival efficiency, as determined by dividing the number of graduates by the number of beginners, is 15.6 per cent.

The progress efficiency, as based upon median ages by grades, is 80 per cent.

The survival-progress efficiency for the rural schools of Missouri is 12.48 per cent.

CHAPTER XXI

RECOMMENDATIONS

The findings of this study concur in the verdict that the rural schools of Missouri are inefficient. Their shortcomings culminate in the following conclusions upon which recommendations are based:

Country boys and girls in Missouri do not get an elementary school education. 844 out of every 1000 who enter as beginners leave the rural schools without completing the prescribed course of study. This is the interpretation of the 15.6 per cent survival-efficiency index.

Country boys and girls waste much time in securing what education they get. The average pupil, if he stays to complete the course, spends ten years doing the work he is presumed to do in eight. This is the interpretation of the 80.0 per cent progress-efficiency index.

No provision for high school training is made for the boys and girls included in this study, although the percentage of pupils of and above normal high school age exceeds the percentage of high school pupils in all cities available for comparison.

Because local administration has proved its inability to supply adequate educational opportunities to rural boys and girls;

Because local administration has proved itself incapable of enforcing the present compulsory attendance law;

Because it is unjust to tax property in one section of the State for the maintenance of schools in another, unless this money is efficiently expended;

Because modern society is so complex as to make impossible an adequate local understanding of the needs that the present-day rural school should supply;

Because concentration of authority is a necessity for efficient administration of any enterprise;

IT IS RECOMMENDED THAT THE RURAL
SCHOOL SYSTEM OF MISSOURI BE RE-
ORGANIZED UPON A STATE BASIS WITH
ADEQUATE PROVISION FOR LOCAL,
STATE AND NATIONAL CO-OPERATION.

That the course of study may be vitalized for children in the elementary schools;

That the opportunities for getting a general high school education may be furnished to those who have completed the elementary course of study;

That specialized courses in vocational agriculture may be provided through regular, part-time, and continuation classes for those children who are preparing to devote their lives to agricultural pursuits;

THE FOLLOWING LEGISLATION IS RECOMMENDED

A law providing for the establishment of consolidated school districts with centralized elementary and high schools.

A law creating a state board of administration endowed with power to organize consolidated school districts, wherever a sufficient number of children are available to justify such centralization of organization, in such manner as is best adapted to meet the needs of rural society.

A new law providing for full-time compulsory attendance by all pupils of legal school age, until the elementary course of study has been completed.

A law creating a state board of administration endowed with adequate power to enforce the provisions of the recommended compulsory attendance act.

BIBLIOGRAPHY

I. Books

Ayers, Leonard P., Laggards in Our Schools.
New York, The Russell Sage Foundation, 1909.

- II. Flexner, Abraham, and Bachman, Frank P.,
Public Education in Maryland. Ed. 4, New
York, General Education Board, 1916.

II. Periodicals

Gaylord, G. W., Retardation and Elimination
in Graded and Rural Schools. In Psycho-
logical Clinic, April 1910.

Phelps, C. L., A Study of 292 Rural Schools
of California with Reference to Age-Grade
Distribution and Other Educational Con-
ditions. In Educational Administration and
Supervision, v.4, no.4, 1918, pp.199-208.

III. Reports, etc.

Forty-fifth Annual Report, Board of Educa-
tion, Kansas City, Missouri, 1916.

Revised School Laws of the State of Missouri-
Revised Statutes 1909.

Sixty-eighth Report of the Public Schools of
the State of Missouri, 1917.

(APPENDIX)

Field Form H.

AGE-GRADE CENSUS REPORT

and

DAILY PROGRAM.

(Name _____)

Investigator)

(Address _____)

County _____ No. District _____ Enumeration _____

Enrollment _____ No. Present _____ Date of this report _____

Enrollment by Age and Grade.

Age last birthday	1	2	3	4	5	6	7	8	Total
5 years									
6 years									
7 years									
8 years									
9 years									
10 years									
11 years									
12 years									
13 years									
14 years									
15 years									
16 years									
17 years									
18 years									
19 years									
20 years									
Total									

Notes. - To be filled out by the Investigator and the Teacher

Miss Ruth Rust,
Albany, Mo.

The data collected in your school for the Co-operative Investigation of the Rural Schools of Missouri have been received and are now being tabulated. Since beginning the tabulation we find that it is very essential to know the number of beginners that you had enrolled up to the time your school was visited by the investigator.

By beginner is meant a pupil who has never been enrolled in any public or private school before this year. Such a pupil may be 5, 6, 7. or even 13 or 17 years of age.

Inspected by
Prof. A. Boyd,

3-15-1918

Please write the number of beginners in the proper space below and return this letter in the enclosed stamped envelope at the earliest possible date.

Thanking you for all co-operation, I am

Very truly yours,

(Signed) A. G. Capps, Secretary,

Committee on Investigation of
Rural Schools

Post Office Albany,
Date Mo.

Number of beginners three.

Sign your name here Ruth Rust.

INSTRUCTIONS

This report must be made in duplicate. One copy is to be filed with the district clerk, the other with the county superintendent, who should receipt the teacher for it. Sections 10861 and 10935, R. S. 1909.

The teacher cannot legally draw wages for the last month of the term until this report has been made and filed.

Only one term report, made in duplicate, is required in one school year. If there be a change of teachers, the one who is teaching at the end of the year should make term report for the entire year. The law recognizes only one term each year in each school district, and one teacher each year for a one-room school.

Should there be more than one teacher employed, the subordinate teachers (the assistants) should report to the principal the necessary facts. The principal should make up and submit to the board, and to the county superintendent if the school is under his supervision, the consolidated term report.

Teacher's Term Report

To District Clerk and County Superintendent.

District No. 79

County of Randolph

STATE OF MISSOURI,

For the term beginning on the 9 day

of July, 1916 and ending

this 20 day of Apr., 1917.

Ethel Coleman,

Teacher.

IMPORTANT.

The board can not legally order the last month's warrant drawn until this report has been made and filed with district clerk and county superintendent. To issue the last month's warrant before the board has received the county superintendent's receipt for this report makes the members of the board personally liable for the money thus illegally paid, and may also cause loss of State School Fund on part of the school district. The apportionment of State School Fund depends upon this report. (R. S. 1909, Secs. 10861 and 10935, and Sec. 10822 Session Acts, 1911.)

TERM STATISTICS

- Enrollment: { White—male, 44; female, 46; total, 90
Colored—male, 0; female, 0; total, 0; grand total, 90
- Total days' attendance by all pupils, 4,384; average daily attendance, 27 3/4
- *Length of school term in days, 160
- Total number visitors, 20
- No. cases tardiness, 70; truancy, 0; corporal punishment, 1
- No. pupils that may be seated in school—white, 60; colored, 0; total, 60
- No. pupils completing common school course of study—male, 1; female, 0; total, 1
- No. yrs. in H. S. Course, 1; No. enrolled in H. S., 1; male, 1; female, 0; total, 1
- No. volumes in library, 93; value of library, \$10.00; amount spent this year for library, \$1.00 on books & supplies
- §No. of teachers holding certificates: { State: Life, 1; 5-Year, 0; Rural, 1; Total, 2
Normal: Diploma, 1; Elementary, 0; Total, 1
County: 1st Grade, 1; 2nd Grade, 0; 3rd Grade, 0; Special, 0; Total, 1; Grand total, 3
- No. of teachers who have had High School Training—one year, 1; two years, 0; three years, 0; four years, 0; total, 1
- No. of teachers who have had Normal Training—eight weeks, 1; sixteen weeks, 0; thirty-two weeks, 0; two years or more, 0; total, 1
- No. of teachers who previous to the present year have had experience in teaching as follows:—No experience, 0; one year, 0; two years, 0; three years, 0; four years, 1; five years, 0; six to nine years, 0; ten or more years, 0; total, 1

I hereby certify the above report to be correct.

Very respectfully,

Ethel Coleman

Teacher.

*Legal holidays are counted as school days and each pupil who was present on the last school day before such holidays is counted present on each of the holidays.
†This includes the amount derived from private sources.
‡Place University diplomas under "Normal."
§Count each teacher only once. Count him in the highest class in which he holds a certificate.

—, 1917

13

PAGE LIMIT REPORT.

D Class, Reading, 1st year, from page.....	5	to page	125
D Class, Reading, 2nd year, from page.....	7	to page	176
D Class.....			
C Class, Reading, from page.....	7 to 206 in 3 rd yr.	to page	37 in 4 th
C Class, Arithmetic, 3rd year, from page.....	10	to page	182
C Class, Arithmetic, 4th year, from page.....	103	to page	218
C Class, Language, from page.....	17	to page	207
C Class, Nat. St. and Geog., from page.....	1	to page	249, 4 th yr.
C Class.....			
B Class, Reading, from page.....	13	to page	302
B Class, Spelling, from page.....	40	to page	98
B Class, Arithmetic, from page.....	185 to 264, 5 th yr.	to page	12 to 220, 6 th
B Class, Geog. and Hist. from page.....	1	to page	168
B Class, Nat. St. or Physiol., from page.....	11	to page	288
B Class, Language, from page.....	13	to page	170
B Class.....			
A Class, Reading, from page.....		to page	
A Class, Spelling, from page.....	60	to page	120
A Class, Arithmetic, from page.....	150	to page	320
A Class, Geography, from page.....	13	to page	190
A Class, Grammar, from page.....	1	to page	100
A Class, U. S. History, from page.....	8	to page	96
A Class, Civil Government, from page.....		to page	
A Class, Agriculture, from page.....		to page	
A Class, Physiology, from page.....		to page	
A Class.....			

REMARKS.

Here state the supplementary work done, the character of work done by the class, the work in music, writing, drawing, etc.

"D" class read "Little Red Riding Hood", "Jack & the Beanstalk", & "Alice in Wonderland".

"C" class read "Robinson Crusoe", "Reynard the Fox", "In Toyland", & "Esquimaux".

"B" class read "Mission", "Andrew Jackson", & "Rife-van Olmsted".

"A" class read "Miles Standish" & "Enoch Arden".

Daily practice in writing by entire school. Drawing in connection with other work.

DAILY PROGRAM.

Time.	Class and Subject.	Length of Recitation.
8:50	Opening Exercise	10
9:00	"A" Arithmetic	15
9:10	"D" Reading, 9 th 1	10
9:20	"C" Reading, 9 th 2	10
9:30	"B" Reading	15
9:40	"A" Reading	15
10:00	"D" Grammar	15
10:05	"C" Grammar	15
10:30	RECESS.	10
10:30	"D" Reading	10
10:40	"C" Spelling	10
10:50	"B" Arithmetic	15
11:00	"A" " " 4 th	15
11:20	"B" " " 5-6	20
11:40	"A" Hist. & Gov't.	20
12:00 to 1:00	NOON.	
1:00	Song by all	5
1:05	"C" Geog. & Nat. St.	20
1:20	"D" Read. 11 th St.	15
1:30	"A" Agr. or Phys.	15
1:40	"B" History or Nat. St.	15
2:00	"C" Geog. & Hist.	15
2:20		
2:30	RECESS.	10
2:40	"C" Lang. & Spell	15
2:50	"B" Geog.	15
3:00	"D" Nat. St. or Phys.	15
3:10	"A" Story	15
3:20	"B" " " 2 nd yr.	10
3:30	"C" Read. & Spell	10
3:40	"D" Lang. & Spell	10
3:55	Close	5

Have program used during term similar to one found on page 2 of Cover of State Course of Study, 1912.

INSTRUCTIONS

This report must be made in duplicate. One copy is to be filed with the district clerk, the other with the county superintendent, who should receipt the teacher for it. Sections 10861 and 10935, R. S. 1909.

The teacher cannot legally draw wages for the last month of the term until this report has been made and filed.

Only one term report, made in duplicate, is required in one school year. If there be a change of teachers, the one who is teaching at the end of the year should make term report for the entire year. The law recognizes only one term each year in each school district, and one teacher each year for a one-room school.

Should there be more than one teacher employed, the subordinate teachers (the assistants) should report to the principal the necessary facts. The principal should make up and submit to the board, and to the county superintendent if the school is under his supervision, the consolidated term report.

Teacher's Term Report

To District Clerk and County Superintendent.

District No. 52
County of St. Louis

STATE OF MISSOURI,

For the term beginning on the 4 day
of Sept., 1916, and ending
this 18 day of May, 1917
Blanch Stovall
Teacher.

IMPORTANT.

The board can not legally order the last month's warrant drawn until this report has been made and filed with district clerk and county superintendent. To issue the last month's warrant before the board has received the county superintendent's receipt for this report makes the members of the board personally liable for the money thus illegally paid, and may also cause loss of State School Fund on part of the school district. The apportionment of State School Fund depends upon this report. (R. S. 1909, Secs. 10861 and 10935, and Sec. 10822, Session Acts, 1911.)

TERM STATISTICS

- Enrollment: { White—male, 21; female, 13; total, 34
Colored—male, 0; female, 0; total, 0; grand total, 34
- Total days' attendance by all pupils, 295 2 3/4; average daily attendance, 16 9/10
- *Length of school term in days, 180
- Total number visitors, 6
- No. cases tardiness, 106; truancy, 0; corporal punishment, 1
- No. pupils that may be seated in school—white, 36; colored, 0; total, 36
- No. pupils completing common school course of study—male, 2; female, 0; total, 2
- No. yrs. in H. S. Course, 0; No. enrolled in H. S., 0; male, 0; female, 0; total, 0
- No. volumes in library, 22 1/2; value of library, \$47; amount spent this year for library, \$23.75
- No. of teachers holding certificates: { State: Life, 0; 5-Year, 0; Rural, 0; Total, 0
Normal: Diploma, 0; Elementary, 0; Total, 0
County: 1st Grade, 0; 2nd Grade, 1; 3rd Grade, 0; Special, 0; Total, 1; Grand total, 1
- No. of teachers who have had High School Training—one year, 0; two years, 0; three years, 0; four years, 1; total, 1
- No. of teachers who have had Normal Training—eight weeks, 0; sixteen weeks, 1; thirty-two weeks, 0; two years or more, 0; total, 1
- No. of teachers who previous to the present year have had experience in teaching as follows:—No experience, 0; one year, 0; two years, 0; three years, 0; four years, 0; five years, 1; six to nine years, 0; ten or more years, 0; total, 1

I hereby certify the above report to be correct.

Very respectfully,

Blanch Stovall Teacher.

*Legal holidays are counted as school days and each pupil who was present on the last school day before such holiday is counted present on each of the holidays.
This includes the amount derived from private sources.
Place University diplomas under "Normal."
Count each teacher only once. Count him in the highest class in which he holds a certificate.

FINAL GRADE REPORT

Grade Report of District No. 52
For the Term Beginning Sept 4

St. Louis
and Ending May 18, 1917

NAMES OF PUPILS
To Teacher—Write first, names of pupils in Grade 1; then those in Grade 2, etc. Mark pupils thus (*) who have failed of promotion.

	AGE	CLASS	YEAR	No. Days Attended	1st GRADE	2nd GRADE	3rd GRADE	4th GRADE
					Reading & Spelling Nature & Language Hd. Wt. & Numbers Writing & Drawing	Reading & Spelling Nature & Language Numbers Writing & Drawing	Reading & Spelling Language Nature & Geography Arithmetic Writing & Drawing	Reading & Spelling Language Nature & Geography Arithmetic Writing & Drawing
1	Aplin Genevieve *	6	D-1	1	30 60 75 70			
2	Scharrell Dorothy *	6	D-1	1	35 86 85 85 87			
3	Mayer Mildred	5	D-1	1	9 12 85 85 85 84			
4	Wiemann Mildred	6	D-1	1	9 3 85 84 85 84			
5	Daub Alethea	6	D-1	1	116 90 88 86 86+			
6	Pauble Norman	6	D-1	1	126 80 82 79 80			
7	Becker Ernest	7	D-1	2	139 88 89 88 86			
8	Merz Leo	7	D-1	2	112 86+ 88 87 87			
9	Loehhaas Hilbert	8	D-1	2	23 83 84 86 78			
10	Blanner Loretta	8	D-2	3	113 78 76 81 83			
11	Blanner Russell	9	D-2	3	127 78 75 80 80			
12	Godwin Albert	9	D-2	3	161 85 87 90 85			
13	Aplin Louise	8	D-2	3	40 86 87 87 88			
14	Deala Hadley *	7	D-2	2	31 85 84 83 84			
15	Pauble Edward	9	D-2	1	127 85 84 87 81			
16	Schuster Alice	8	C-1	3	122 85+ 86+ 85 85 84			
17	Daub August	8	C-1	3	82 84 83 81 84 87			
18	Bergbrader Freda *	9	C-1	1	At school 1 da			
19	Styler Barney *	10	C-1	3	12 Short attendance			
20	Styler Roy *	12	C-2	5	12 88 87 86 85 86			
21	Pauble Gladys	11	C-2	114	85 85 84 90 86			
22	Bopp Hilma	10	C-2	4	148 91 88 86 85 86			
23	Rousey Edith	10	C-2	4	168 85 83 84 83 82			
24	Aplin Edgar	10	C-2	4	41 Short attendance			
25	Deala William *	9	C-2	4	38 At school 1 da			
26	Bergbrader Daisy *	12	C-2	1				
27	Loehhaas Jacob	12	B	52				
28	Deala George *	12	D-1	7	45			
29	Daub Andrew *	10	D-1	7	136			
30	Aplin Chas *	13	P-1	7	34			
31	McDonald John	11	D-1	7	176			
32	Wiemann Arthur	14	D-2	8	146			
33	Schuster Alfred	13	D-2	8	160			
34	Deala Raymond *	13	D-2	8	28			

5th GRADE	6th GRADE	7th GRADE	8th GRADE	PROMOTED TO
Arithmetic Geography	Reading Spelling Language Arithmetic Physiology Geography	Reading & Literature Spelling Grammar Arithmetic U. S. Hist. Geography Agriculture	Reading & Literature Spelling Grammar Arithmetic U. S. Hist. Mo. Hist. & Civ. Gov. Physiology & Agr.	
				*
				*
				*
				D-2
				" "
				" "
				" "
				Removed
				D-2
				C-1
				C-1
				C-1
				C-1
				C-1
				*
				C-1
				C-2
				C-2
				*
				*
				*
				C-1
				B-1
				B-1
				B-1
				*
				*
				A-1
				*
				*
				*
				A-2
				Graduated
				" "
				*

87 88 85+ 86+ = 86

Short attendance

79+ 77+ 78+ 78+ 72 76+ 72+ 81

78 77 74 74 70 78 83

88+ 82+ 81 88+ 85 84 82+ 88

88+ 80+ 82 89 80+ 82+

91 88+ 90 91 87 88

Short attendance

PAGE LIMIT REPORT.

D Class, Reading, 1st year, from page *Entire Book* to page
 D Class, Reading, 2nd year, from page " to page
 D Class.....
 C Class, Reading from page..... to page
 C Class, Arithmetic, 3rd year, from page..... to page
 C Class, Arithmetic, 4th year, from page..... to page
 C Class, Language, from page..... to page
 C Class, Nat. St. and Geog., from page..... to page
 C Class.....
 B Class, Reading, from page..... to page
 B Class, Spelling, from page..... to page
 B Class, Arithmetic, from page..... to page
 B Class, Geog. and Hist. from page..... to page
 B Class, Nat. St. or Physiol., from page..... to page
 B Class, Language, from page..... to page
 B Class.....
 A Class, Reading, from page..... to page
 A Class, Spelling, from page..... to page
 A Class, Arithmetic, from page..... to page
 A Class, Geography, from page..... to page
 A Class, Grammar, from page..... to page
 A Class, U. S. History, from page..... to page
 A Class, Civil Government, from page..... to page
 A Class, Agriculture, from page..... to page
 A Class, Physiology, from page..... to page
 A Class.....

Impossible to take these subjects as none of them come in State Course of Study if used.

REMARKS.

Here state the supplementary work done, the character of work done by the class, the work in music, writing, drawing, etc.

Some drawing in water colors and crayolas.

Read some of library books recommended by State Course of Study.

DAILY PROGRAM OF RECITATIONS.

Time.	Class and Subject.	Length of Recitation.
9:00	Exercises, <i>Exercises</i>	10
9:10	D. No. Work I	10
9:20	D. " " II	15
9:35	C. Arith.	15
9:50	B. " "	20
10:10	A. " "	20
10:30	RECESS.	
10:45	D. Reading I	15
11:00	D. " " II	10
11:10	A. Grammar	15
11:25	C. Lang.	15
11:40	B. " "	10
11:50	His. and Govt.	10
12	NOON.	
1:00	Lang. and Read. I	15
1:15	" " II	15
1:30	C. Reading, Spelling	18
1:48	B. " "	12
2:00	A. " "	20
2:20	Writing	10
2:30	RECESS.	
2:45	D. Reading I	15
3:00	A. Geog.	15
3:15	C. Geog. and Hist.	15
3:30	B. " "	10
3:40	D. Reading II	7
3:47	C. Spelling	3
3:50	Agri. or Phy.	

Have program used during term similar to one found on page 2 of Cover of State Course of Study, 1913.

TABLE 1 (Appendix) ENUMERATION, ENROLLMENT AND AVERAGE DAILY ATTENDANCE 1907-1917*

: Years :	: Total : Enumera- : tion :	: Total : Enroll- : ment :	: Average : Daily : Attend- : ance :	: % : Enroll- : ment of : Enumera- : tion :	: % : Attend- : ance of : Enumera- : tion :	: % : Attend- : ance of : Enroll- : ment :	: Total : No. : Com- : pleting : Course :	: % : Gradu- : ates of : Enroll- : ment :
: 1907 :	: 452352 :	: 418908 :	: 207185 :	: 95 :	: 46 :	: 49 :	:	:
: 1908 :	: 437361 :	: 376193 :	: 201554 :	: 86 :	: 46 :	: 52 :	:	:
: 1909 :	: 445012 :	: 380097 :	: 251425 :	: 85 :	: 56 :	: 66 :	:	:
: 1910 :	: 440021 :	: 376013 :	: 236969 :	: 85 :	: 53 :	: 62 :	:	:
: 1911 :	: 431195 :	: 358816 :	: 236839 :	: 82.7 :	: 52.6 :	: 63.5 :	:	:
: 1912 :	: 421908 :	: 345085 :	: 233590 :	: 81.8 :	: 55.4 :	: 67.7 :	:	:
: 1913 :	: 430060 :	: 348210 :	: 230631 :	: 81.0 :	: 53.6 :	: 66.2 :	: 4658 :	: 1.34 :
: 1914 :	: 421462 :	: 343757 :	: 238340 :	: 81.5 :	: 56.3 :	: 69.3 :	: 5186 :	: 1.51 :
: 1915 :	: 417077 :	: 342806 :	: 233120 :	: 82.2 :	: 55.9 :	: 68.0 :	: 9278 :	: 2.71 :
: 1916 :	: 413004 :	: 343653 :	: 219872 :	: 84.4 :	: 53.2 :	: 63.6 :	: 5608 :	: 1.61 :
: 1917 :	: 406516 :	: 315160 :	: 212214 :	: 77.5 :	: 52.2 :	: 67.3 :	: 9143 :	: 2.90 :

*Annual Reports of the Public Schools of the State of Missouri.

TABLE 2 (Appendix) AGE-GRADE CENSUS OF 52,922 RURAL PUPILS IN SOUTH DAKOTA

: Age in Years :	: I :	: II :	: III :	: IV :	: V :	: VI :	: VII :	: VIII :	: TOTAL BY :
: : :	: I :	: II :	: III :	: IV :	: V :	: VI :	: VII :	: VIII :	: AGES :
: Under 6 :	: 1798 :	: 18 :	: :	: :	: :	: :	: :	: :	: 1816 :
: 6 to 7 :	: 4960 :	: 1019 :	: 105 :	: 9 :	: :	: :	: :	: :	: 6093 :
: 7 to 8 :	: 2239 :	: 2522 :	: 855 :	: 108 :	: 19 :	: :	: :	: :	: 5743 :
: 8 to 9 :	: 891 :	: 1755 :	: 2171 :	: 884 :	: 106 :	: 11 :	: :	: :	: 5818 :
: 9 to 10 :	: 294 :	: 708 :	: 1507 :	: 2148 :	: 814 :	: 142 :	: 6 :	: :	: 5619 :
: 10 to 11 :	: 126 :	: 269 :	: 865 :	: 1690 :	: 1866 :	: 799 :	: 89 :	: 16 :	: 5720 :
: 11 to 12 :	: 66 :	: 125 :	: 305 :	: 958 :	: 1560 :	: 1600 :	: 436 :	: 149 :	: 5199 :
: 12 to 13 :	: 51 :	: 61 :	: 153 :	: 438 :	: 985 :	: 1703 :	: 1208 :	: 685 :	: 5284 :
: 13 to 14 :	: 43 :	: 27 :	: 77 :	: 215 :	: 481 :	: 1013 :	: 1378 :	: 1297 :	: 4531 :
: 14 to 15 :	: 22 :	: 20 :	: 42 :	: 107 :	: 247 :	: 558 :	: 1042 :	: 1608 :	: 3646 :
: 15 to 16 :	: 0 :	: 0 :	: 16 :	: 44 :	: 104 :	: 295 :	: 521 :	: 1130 :	: 2110 :
: 16 to 17 :	: 4 :	: 1 :	: 8 :	: 22 :	: 32 :	: 90 :	: 186 :	: 605 :	: 948 :
: 17 to 18 :	: 2 :	: :	: 3 :	: 8 :	: 5 :	: 26 :	: 69 :	: 190 :	: 303 :
: 18 to 19 :	: :	: :	: 1 :	: 1 :	: 5 :	: 3 :	: 24 :	: 58 :	: 92 :
: TOTAL by :	: :	: :	: :	: :	: :	: :	: :	: :	: :
: Grades :	: 10496 :	: 6525 :	: 6108 :	: 6632 :	: 6224 :	: 6240 :	: 4959 :	: 5738 :	: 52922 :
: Below) :	: :	: :	: :	: :	: :	: :	: :	: :	: :
: Normal) No. :	: 1798 :	: 1037 :	: 960 :	: 1001 :	: 939 :	: 952 :	: 531 :	: 850 :	: 8068 :
: Age) % :	: 17.1 :	: 15.8 :	: 15.7 :	: 15.1 :	: 15.1 :	: 15.3 :	: 10.7 :	: 14.8 :	: :
: Normal) No. :	: 4960 :	: 2522 :	: 2171 :	: 2148 :	: 1866 :	: 1600 :	: 1208 :	: 1297 :	: 17772 :
: Age) % :	: 47.3 :	: 38.7 :	: 35.5 :	: 32.4 :	: 30.0 :	: 25.6 :	: 24.7 :	: 22.6 :	: :
: Above) :	: :	: :	: :	: :	: :	: :	: :	: :	: :
: Normal) No. :	: 3738 :	: 2966 :	: 2977 :	: 3483 :	: 3419 :	: 3688 :	: 3220 :	: 3591 :	: 27082 :
: Age) % :	: 35.6 :	: 45.5 :	: 48.8 :	: 52.5 :	: 54.9 :	: 59.1 :	: 64.6 :	: 62.6 :	: :

TABLE 3 (Appendix) AGE GRADE CENSUS OF 13,626 RURAL PUPILS OF CALIFORNIA

:Age Nearest :	:	:	:	:	:	:	:	:	:	:
:Birthday :	I :	II :	III :	IV :	V :	VI :	VII :	VIII :	TOTAL :	
: 5 Years :	:	:	:	:	:	:	:	:	:	
: 6 Years :	1389 :	87 :	4 :	:	:	:	:	:	1480 :	
: 7 Years :	868 :	644 :	107 :	5 :	:	:	:	:	1624 :	
: 8 Years :	336 :	639 :	552 :	115 :	3 :	:	:	:	1645 :	
: 9 Years :	98 :	291 :	581 :	475 :	98 :	8 :	:	:	1551 :	
:10 Years :	41 :	115 :	349 :	568 :	388 :	81 :	5 :	:	1547 :	
:11 Years :	24 :	37 :	162 :	336 :	492 :	313 :	60 :	5 :	1429 :	
:12 Years :	15 :	25 :	56 :	171 :	319 :	450 :	252 :	49 :	1337 :	
:13 Years :	14 :	12 :	40 :	83 :	192 :	307 :	397 :	233 :	1278 :	
:14 Years :	4 :	3 :	14 :	39 :	65 :	149 :	273 :	361 :	909 :	
:15 Years :	5 :	3 :	4 :	12 :	31 :	77 :	146 :	275 :	553 :	
:16 Years :	1 :	1 :	:	4 :	8 :	11 :	54 :	117 :	196 :	
:17 Years :	:	:	1 :	2 :	1 :	7 :	18 :	25 :	54 :	
:18 Years :	:	:	1 :	1 :	:	3 :	3 :	9 :	17 :	
:Over 18 :	:	:	:	:	1 :	1 :	2 :	3 :	7 :	
:TOTAL by :	:	:	:	:	:	:	:	:	:	
:Grades :	2795 :	1857 :	1871 :	1811 :	1598 :	1407 :	1210 :	1077 :	13626 :	
:Below :	:	:	:	:	:	:	:	:	:	
:Normal) No. :	:	87 :	111 :	120 :	101 :	89 :	65 :	54 :	627 :	
:Age) % :	0 :	4.7 :	5.9 :	6.6 :	6.3 :	6.4 :	5.4 :	5.0 :	4.6 :	
:Normal) No. :	1389 :	644 :	552 :	475 :	388 :	313 :	252 :	233 :	4246 :	
:Age) % :	49.7 :	34.7 :	29.5 :	26.2 :	24.3 :	22.2 :	20.8 :	21.6 :	31.2 :	
:Above :	:	:	:	:	:	:	:	:	:	
:Normal) No. :	1406 :	1126 :	1208 :	1216 :	1109 :	1005 :	893 :	790 :	8753 :	
:Age) % :	50.3 :	60.6 :	64.6 :	67.2 :	69.4 :	71.4 :	73.8 :	73.4 :	64.2 :	

UNIVERSITY OF MISSOURI
COLUMBIA

SCHOOL OF EDUCATION
OFFICE OF THE DEAN

April 2, 1919.

Dean Walter Miller,
Graduate School,
University of Missouri.

My dear Dean Miller:

I have examined the dissertation entitled "An Age-Grade Census of Missouri Rural Schools", which has been submitted by Mr. Bertram Harry in partial fulfilment of the requirement for the degree of Master of Arts. In my opinion this dissertation meets the general standard that has been established in the University of Missouri for the Master's dissertation.

Mr. Harry's dissertation is returned herewith.

Very truly yours,

A handwritten signature in dark ink, appearing to read "J. H. Courson", written in a cursive style.

The Towner Educational Bill

H. R. 15400

65th Congress, Third Session

Introduced by Congressman H. M. Towner of Iowa, January 30, 1919, at the request of the American Federation of Labor, the American Federation of Teachers, and the National Education Association.

BRIEF ANALYSIS OF THE BILL

Title: "A bill to create a Department of Education, to authorize appropriations for the conduct of said Department, to authorize the appropriation of money to encourage the states in the promotion and support of education and for other purposes."

Establishes a Department of Education

The bill establishes a Department of Education, with a Secretary at its head, thus giving Education recognition in the President's Cabinet along with Agriculture, Commerce, Labor and the other Departments. At present the administration of educational affairs is parceled out among more than eighty different bureaus, boards and divisions of the several Departments of Government. The Bureau of Education in the Department of the Interior was established for the collection of statistics and the dissemination of information.

Consolidates Bureaus and Authorizes Educational Research

The bill transfers the Bureau of Education to the Department of Education and authorizes the President to transfer such other educational bureaus, commissions, boards, divisions and branches as, in his judgment, should be administered by the Department of Education. It is made the specific duty of the Department to encourage the states in the development of public educational facilities, and authorizes investigation and research in the fields of illiteracy; immigrant education; public school education, especially rural education; physical and health education and recreation; preparation and supply of competent teachers; and in such other fields as come within the provision of the Act. It authorizes the encouragement of higher and professional education, and the appointment of educational attaches to foreign embassies to investigate and report on the educational systems of other countries.

Authorizes Appropriations for Specific Purposes.

The bill authorizes the appropriation of \$100,000,000 annually to be apportioned among the states for the following purposes:

1. To encourage the states in the removal of illiteracy, \$7,500,000.
2. To encourage the states in the Americanization of foreigners, \$7,500,000.
3. To encourage the states in the equalization of educational opportunities, and for the partial payment of teachers' salaries, providing better instruction, extending school terms and otherwise providing equally good schools for all children, \$50,000,000.
4. To encourage the states in the promotion of physical and health education and recreation, \$20,000,000.
5. To encourage the states in providing facilities for preparing and supplying better teachers, \$15,000,000.

Preserves State Autonomy and Local Control.

The appropriations are allotted to the states on condition that the state, or local authority, or both, shall furnish an equal amount for each specified purpose. The administration and control of education is left entirely to the states, and to local authorities, the Federal Government exercising supervision only to the extent necessary to see that the several amounts appropriated are used by the states for the purposes specified in the Act. The bill provides that the funds allotted to the several states shall be paid quarterly to the respective state treasurers, and disbursed on the order of the state's chief educational authority, as designated by the state legislature.

ARGUMENTS FOR THE BILL

The Removal of Illiteracy.

The war demonstrated beyond a doubt that education is a subject of great national importance. The selective draft revealed that there were 700,000 illiterate males in America between the ages of 21 and 31. These were called out by our great free country to defend principles they could not understand and to uphold with their lives a constitution they could not read. Our American officers labored to make them efficient soldiers; provision must now be made to make them efficient American citizens. In peace as in war, men are valuable in proportion as they are educated and intelligent. The last census shows that there are in this country more than five and one-half million illiterates over ten years of age. The nation must encourage and assist the states to remove this unfortunate condition which is a menace to our country. These ignorant masses lower American standards and are exploited by greedy profiteers and unprincipled leaders. Anarchy and social disorders thrive on illiteracy.

Physical and Health Education and Recreation.

Again, it was found that more than 700,000 of those examined for military service were physically unsound, and that a large proportion of the defects discovered could have been prevented or removed by proper attention in youth. This great problem deserves more consideration than it has received in the past. Here may be found the source of enormous economic and industrial loss, and the cause of much poverty and misery. The conservation of the human resources of the nation is certainly as important as the conservation of its other resources. Our people, particularly the industrial classes, are vitally interested in the promotion of the physical welfare of all through physical and health education and the encouragement of wholesome recreation.

Americanization Vital to National Welfare.

The Americanization, not only of the more than 13,000,000 foreign-born in our country, but of the many native-born who are ignorant of their duties and responsibilities as citizens of our free country, is a matter of vital importance. A government of the people and by the people, made up of people from every land, must necessarily be determined by the character of its composite citizenship. Therefore, the welfare and perpetuity of our nation demand that all possible encouragement be given to the states in the development of a citizenship physically and intellectually sound, and imbued with the spirit and ideals of true Americanism. Thus only can our Republic be made safe, efficient and enduring.

Teachers Must Be Better Trained and Better Paid.

To meet these urgent demands, constructive legislation is needed to encourage and strengthen public education in the states. As the teacher is of first importance in every educational undertaking, we must make provision for more competent, well trained teachers. But to obtain and keep good, experienced teachers it is evident that adequate salaries must be paid. The Bureau of Education reports that the average salary paid teachers in this country in 1918 was \$630.64, which is \$243.00 less per annum than the average wage paid to scrubwomen in the United States Navy Yard. Is there any wonder that results are not always satisfactory? Inefficient schools are almost invariably the result of inadequate support. Low salaries are driving many good teachers out of the profession and filling the ranks with the immature, inexperienced and untrained. Of the 600,000 teachers in America, 100,000 are less than 20 years old; 150,000 have served two years or less; 30,000 have had no education beyond the eighth grade; 200,000 have had less than a high school education. The Federal Government should investigate this great problem so vital to the welfare of the more than 22,000,000 children of America, and give aid and encouragement to the states in its solution. Our government has been accused of giving more thought to agriculture and commerce than to education; more attention to live stock than to children. The government should give no less attention to those highly important agencies, but more to education.

Equal Educational Opportunities for All.

The promotion of social justice and the general welfare demands the equalization of educational opportunities throughout the country. We sometimes boast that this is a land of equal opportunity, and yet we know that all the children of America do not have an equal chance for an education. The heaviest burdens often fall upon those least able to bear them. Every American, however fortunate his condition, should be deeply concerned in the fact that we have in our country 1,534,000 native-born whites, 2,227,000 colored, and 1,650,000 foreign-born who cannot read and write. Where are these found? Principally in the congested cities of the north and in the remote districts of the south where educational advantages are poorest, and where they should be best. The light must be turned on in these dark places. We have spent billions of wealth and thousands of lives to uphold our ideals of liberty and justice, nor have we caviled over who was paying most. Shall we, as a nation, begrudge a few hundred millions that every child in America, whether born in the crowded city or in the sparsely settled rural district, shall have the advantage of a good common school education? This is simply guaranteeing equal rights and a square deal to all.

Encouragement of Education Demands National Attention.

That the Federal Government should bear its part in the support of public education is the natural result of a process of development. Our school system

began as a local institution. First there was the subscription school for the benefit of the families in a neighborhood who were able and willing to contribute to its support. Then there developed in some localities schools supported by local taxation, offering free the rudiments of education. Finally certain states came to recognize the importance of education, and passed laws establishing more or less imperfect free school systems. Other states followed, and gradually free schools became general, but even today educational opportunities vary greatly in different parts of the country. Now the broader aspect of public education is being recognized, and this great institution that was first local, and then received consideration from the states, is now commanding increased attention from the Federal Government. It is fundamentally sound that the nation, the state and the local community should share in the support of an institution essential to the highest good of all. The principle of federal aid has already been established along lines which are no more intimately related to national welfare than is education.

Other Nations Leading. Time for America to Act.

The other great nations are giving particular attention to public education since the war, and notwithstanding their enormous war debts are appropriating more for this purpose than ever before. The Fisher Educational Bill, recently enacted by the English Parliament, is a most advanced measure. Education is represented in the Cabinets of England, France and Italy. The time has come in America when the great importance of education from the national standpoint makes it appropriate and necessary that a Department of Education shall be established to coordinate and administer the various educational activities of the Government, and that the Federal Government shall give aid and encouragement to the states in the removal of illiteracy, the Americanization of immigrants, the promotion of physical and health education and recreation, the preparation of teachers, the equalization of educational opportunities, and the improvement of our public schools, to the end that every child and every citizen in the land, entitled to the protection of our flag and the blessings of liberty guaranteed by our constitution, shall receive freely what Abraham Lincoln asked for all, "An unfettered start and a fair chance in the race of life."

COMMENTS ON THE BILL

"I consider the unifying and coordinating of the various educational agencies of the Federal Government within one Department, and full cooperation with State and local agencies, as provided in this bill, essential and vital to the promotion of public education. The American Federation of Labor has discussed this matter at a number of its recent conventions and is practically unanimous and thoroughly in earnest in its support."—*Henry Sterling, Legislative Representative, American Federation of Labor.*

"The Smith bill as amended by Representative Towner and introduced by him in the House, will have the strong support of the American Federation of Teachers. The new measure provides for Federal aid in the payment of teachers' salaries and fully safeguards the control of the States over their schools. The amendments were made in response to public sentiment throughout the country and meet with the hearty approval of the American Federation of Teachers. The people will demand the passage of this bill."—*L. V. Lampson, National Organizer, American Federation of Teachers.*

"Congressman Towner's bill has the hearty endorsement of the National Education Association. It recognizes the vital importance of education from the national standpoint and outlines a broad, comprehensive program for obtaining definite and practical results. The English Parliament has passed the Fisher bill, one of the most important educational measures ever enacted into law. If America is to meet the educational demands of this critical period, a bill of this character should be enacted by Congress."—*Hugh S. Magill, Field Secretary, National Education Association.*

010-100735046

~~This thesis is never to leave this room~~
~~Neither is it to be checked out overnight.~~

Harry1919ScanSpecs. txt

MU Libraries
University of Missouri --Columbia

MU Theses and Dissertations (Pre-1920)

Local identifier Harry1919

Capture information

Date captured	20160420
Scanner manufacturer	Zeutschel
Scanner model	OS 15000
Scanning system software	Omni scan v. 12.8 SR2 (2675)
Optical resolution	600 dpi
Color settings	grayscale, 8 bit and color, 24 bit
File types	tiff

Source information

Format	Book
Content type	Text [with images]
Source ID	010-100735046
Notes	Pages typed and single-sided. Title page has perforated property stamp. Supplemental materials are pasted in. Page 11 was inserted upside down.

Derivatives - Access copy

Compression	Tiff compressed with LZW before conversion to pdf
Editing software	Adobe Photoshop CS5
Resolution	600 dpi
Color	Grayscale and color
File types	pdf
Notes	Tables and diagrams were rotated for easier viewing. Grayscale pages cropped, canvassed, and images brightened. Color pages cropped and canvassed. Blank pages removed. Canvas size: 7.75 x 10.75