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Engelhardt, H. L. and Evenden,

Report of the Survey
of
The Public School System
of
Lawrence Township, Mercer County,
New Jersey

48 72 772



School Year, 1921-1922

Made by
Division of Field Studies
Institute of Educational Research
Teachers College, Columbia University
New York City



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Survey of CALIFORNIA

The Schools of Lawrence Township
Mercer County, New Jersey

Directed by

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PART I

POPULATION STUDIES

Lawrence Township is located in the southern portion of Mercer County, New Jersey. The southern section of the township borders on the outskirts of the city of Trenton. The township is a residence and rural community, many of the inhabitants of which are engaged in agricultural pursuits. Because of the electric railroad transportation facilities, the township has become in part a suburban residential community for Trenton.

In Table I will be found the total population of Lawrence Township for the United States Census periods 1890 to 1920 with the percentages of increase in population over each of the three decades and comparison with the percentages of increases for the state of New Jersey and Mercer County. The population of Lawrence Township has grown more rapidly than the population of the state as a whole for the last two decades and also more rapidly than the total population of Mercer County itself.

TABLE I

POPULATION OF NEW JERSEY, MERCER COUNTY AND LAWRENCE TOWNSHIP
FROM 1890 TO 1920

Per Cent of Increase for Each Decade

Year	<i>State of New Jersey</i>	<i>Per Cent of Increase</i>	<i>Mercer County</i>	<i>Per Cent of Increase</i>	<i>Lawrence Township</i>	<i>Per Cent of Increase</i>
1890	1,444,933		79,978		1481	
1900	1,883,669	30.4	95,365	19.2	1555	5.0
1910	2,537,167	34.7	125,657	31.8	2522	62.1
1920	3,155,900	24.4	159,881	27.2	3686	46.2

*Growth in Townships
and Boroughs of
Mercer County*

There are thirteen townships and boroughs in Mercer County. Of these, Hamilton Township surpassed Lawrence Township in increase in population for the decade 1900-1910 and Ewing and Hamilton Townships surpassed Lawrence Township in the increase in population from 1910-1920. Previous to 1890, six of

the townships of Mercer County were decreasing in population. Only one township showed a decrease in the decade 1910-1920. The increase in Lawrence Township is no doubt due to the tendency toward suburban development in our American cities and the great change which has taken place in transportation facilities. With further progress in the development of the means of transportation, Lawrence Township will continue to increase in population. With this increase in population will come the problem of caring for a larger number of school children. It is desirable that the nature and extent of the school problem be anticipated for the future because of present overcrowded conditions in the Lawrence Township schools.

The growth of population in the townships and boroughs of Mercer County is presented in Table II.

The Distribution of Population

On Map No. 1 have been given the approximate residential locations of each family for Lawrence Township. It will be noted that the greatest density of population is in the Slackwood section which borders upon Trenton, the Eldridge Park section and the Lawrenceville section. All three of these sections lie at points of vantage on the suburban trolley lines running from Trenton to Princeton. Aside from these three concentration points, the remainder of the population of the township is evenly distributed upon farms of various sizes.

The Size of Farms

On Map No. 1, the township has been divided into three divisions for the purpose of distributing farms according to size. Division I is that section of the township north of Lawrenceville. Division II is that section to the east of Lawrenceville, including Clarksville, Princesville and Bakers Basin. Division III contains the urban communities of Lawrenceville, Eldridge Park and Slackwood in which approximately three-fourths of the population of the township reside.

According to data furnished by the assessor of the township, 2,685 people live in the three urban communities, while 1,000 people are living in the rural sections. Changes in the size of farms over a period of seven years indicate that the variation in population in the rural sections has been only slight during recent years.

In Table III it will be seen that very few changes were made either in the size or number of farms in Divisions I and II in the seven year period from 1914 to 1921. On the other hand, 38 farms, or a total of 388 acres, have been cut into town lots in Division III during

the same period of years. During this period of seven years, there has been practically no change in the size of farms in Division I. In Division II, the median farm has been reduced in size from 31 acres to 23 acres. In Division III, the number of farms has decreased from 138 to 95, but the median farm has increased in size from 14 to 24 acres. There is a tendency toward increase in size of farms for the entire township for this same period of time, the median farm having

TABLE III

SHOWING COMPARATIVE NUMBER OF FARMS FOR YEARS 1914 AND 1921, DISTRIBUTED ACCORDING TO SIZE AND DIVISION

Number of Farms	Division I		Division II		Division III		Totals	
	Section North of Lawrenceville		Section East of Lawrenceville		Southwest Section including Lawrenceville, Eldridge Park & Slackwood			
Size in Acres	1914	1921	1914	1921	1914	1921	1914	1921
0 to 1.	1	7	2	8	4	16	7	31
1 " 4.99	7	3	8	6	38	11	53	20
5 " 9.99	7	5	7	8	20	6	34	19
10 " 24.99	11	14	13	13	23	15	47	42
25 " 49.99	14	13	4	7	17	10	35	30
50 " 99.99	18	18	16	12	24	24	58	54
100 " 149.99	13	15	6	6	8	9	27	30
150 " 199.99	3	3	4	3	3	3	10	9
200 and over	2	2	2	3	1	1	5	6
Totals	76	80	62	66	138	95	276	241
Medians	46.4	46.2	31.3	22.7	14.6	24.5	24	32.1

changed from 24 acres in 1914 to 32 acres in 1921. Part of this increase in the median farm is due to the fact that many of the farms that were eliminated in Division III were the smaller farms.

Of the 216 farms which in 1914 had 5 or more acres, the median size was 44 acres. In 1921, there were only 120 farms with 5 or more acres and the median size was 51 acres. These facts, coupled with the small number of changes in ownership of farm property in the last

seven years and also with the small number of farms run by tenants, are further indications that the farming population tendencies are rather stabilized for this township. In 1914 to 1921, only 61 farms changed ownership and only 38 farms were being managed by tenants in 1921.

The Composition of Population The New Jersey State Census of 1915 shows that 80% of the population of Lawrence Township is American born, the remainder being made up of English, Germans, Italians and Irish. According to the same census report, the census was divided into the following occupational groups: professional, 66; commercial pursuits, 79; skilled laborers, 371; unskilled, 413; farmers, 146, and all other occupations, 185.

The Present Schools of Lawrence Township

In January 1922, Lawrence Township was being served by five schools, with a school enrolment and school facilities as shown in Table IV.

TABLE IV
THE NUMBER OF ROOMS AND ENROLMENT IN THE LAWRENCE TOWNSHIP
SCHOOLS NOVEMBER 30, 1921

<i>Schools</i>	<i>No. of Rooms</i>	<i>Enrolment</i>	<i>Average Enrolment per Room</i>
Slackwood	8	320	40
Eldridge Park	5*	186	37
Lawrenceville	5**	183	36
Clarksville	1	19	19
Rosedale	1	24	24
Total Number	20	732	36.6

*Including portable.

**Including room in fire hall.

Slackwood School is near Trenton City and serves the children of this suburban district. There is an eight-room building here in which eight teachers are employed. Eldridge Park is about one mile north of Slackwood on the electric line. This is a four-room building with portable attached. The teaching force is made up of five members. Lawrenceville School is located in the community of Lawrenceville

and is near the two electric lines. This building has four rooms and a room above the fire house is used for the reception class and first grade. Five teachers are employed here. Rosedale, in the northern part of the township, and Clarksville, in the extreme eastern section, have one-room schools with one teacher each.

Relation Between Total Population and Public School Population

No school census figures are available for the purposes of this study, since no school census is taken in Lawrence Township. In Table V, public school population has been used instead of the school census figures in order to discover whether there was being maintained a rather constant ratio between total population and public school population. In this table, the total population for each five year period from 1900 to 1920 and the school enrolment for each year of the same period are given. It will be seen that the percentage between public school enrolment and total school population

TABLE V

RELATION BETWEEN TOTAL POPULATION AND PUBLIC SCHOOL POPULATION
Lawrence Township, Mercer County, New Jersey.
With Estimates From 1925 to 1940

	Total Population	Per Cent Increase	Per Cent Decrease	Enrolment*			5 Year Increase in Total Enrolment (Per Cent)	Per Cent Public School Enrolment is of Total Population	Increase in Children of Total Enrolment
				Elem.	H. S.	Total			
1900	1,555		14.6	**302	11	313	7.6	20.1	26
1905	2,043	31.4		**310	***11	321	2.5	15.6	8
1910	2,522	23.4		404	***25	429	33.6	16.4	108
1915	3,339	32.4		578	41	619	44.3	18.5	190
1920	3,686	10.4		776	72	848	36.9	23.0	229
1925	4,419	20		900	95	995	17.3	22.5	147
1930	5,303	20		1,047	120	1,167	17.3	22.0	172
1935	6,364	20		1,218	150	1,368	17.2	21.5	201
1940	7,637	20		1,418	185	1,603	17.2	21.0	235

*School enrolment taken for years 1900-1, 1905-6, etc.

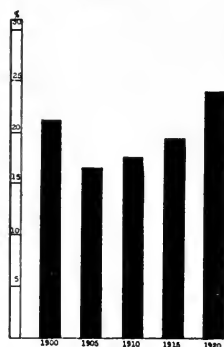
**Includes enrolment in New Jersey Childrens' Home (figures taken from Annual Report of State Board of Education.)

***Estimated high school enrolment.

has ranged from approximately 16% to 23% for this period, the average percentage for the five year periods 1900 to 1920 being approximately 19%.

The percentage that public school enrolment is of total school population for the year 1920 is 23. In Table V are also given the estimates for total population and for school enrolment for each of the next five year periods. These estimates are based upon the tendencies indicated in the table for the past two decades and also upon the belief that the suburban growth will continue at even a greater

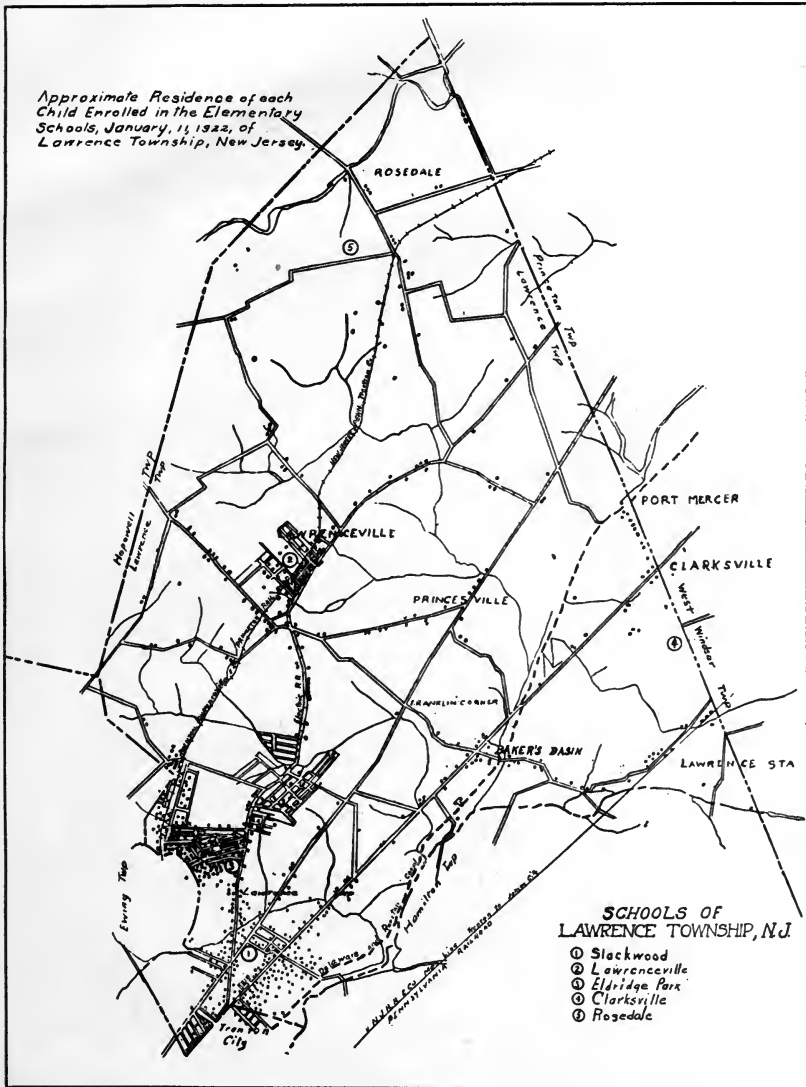
CHART NO. 1



Showing the % which Public School enrolment is of Total Population in 5 Year Intervals, 1900 to 1920

rate in years to come. The school population figures for each of the next five year periods have been based upon what has happened in 1920 and upon the belief that about the same ratio will maintain for the next twenty years. The number of children for whom educational provision was being made in Lawrence Township in 1920 was 848, of whom 776 were being housed in the Lawrence Township schools and 72 were high school pupils being cared for in other school systems. Disregarding the probability that larger percentages of the total school population will be attending high school within the next decade, the estimates of total school enrolment for Lawrence Township will be approximately as indicated in Table V since the ratio of school enrolment to total population has reached a maximum point for this type of community. At the present rate of growth, approximately 5,300 people will be living in Lawrence Township in 1930 and school provisions must be made for about 1,100 children at that time. These are regarded as conservative estimates.

In Chart No. 1 is shown the percentage which the public school enrolment is of total population in five year intervals from 1900 to 1920. There is reason to believe from the nature of the present residential building construction and the types of families which are coming into Lawrence Township that the increase in the ratio which has gradually developed since 1905 will be maintained in the next decade. The desirability of Lawrence Township for residential purposes and for the purpose of bringing up families is not open to question.



MAP No. 2

TABLE VI
SCHOOL ENROLMENT AND ATTENDANCE

Enrolment, Average Daily Attendance and Per Cent of Attendance, in the Schools of Lawrence Township, Mercer County, for the Years 1910-11, and 1915-16 to 1920-21.

Year	Lawrenceville			Stackwood			Eidridge Park (4)		
	Enrolment (1)	A. D. A. (2)	Per Cent Attendance (3)	Enrolment	A. D. A.	Per Cent Attendance	Enrolment	A. D. A.	Per Cent Attendance
1910-11	102	71.6	81.7	173	110.6	81.0	146	96.2	78.9
1915-16	152	105.9	81.6	177	118.9	83.2	138	106.3	83.7
1916-17	166	123.0	87.8	194	144.2	79.8	198	122.4	81.4
1917-18	184	129.6	80.1	208	156.4	87.7	182	121.6	82.1
1918-19	190	134.7	95.1	290	202.3	85.8	202	132.5	78.5
1919-20	194	139.4	85.4	289	212.9	87.1	209	155.8	87.3
1920-21	198	147.1	88.5	316	222	85.7	186		
*1921-22	183			320					

TABLE VI (Continued)

Year	Rosedale			Clarksville			Bakersville (5)			Lawrence Township		
	Enrol- ment	A. D. A.	Per Cent Atten- dance	Enrol- ment	A. D. A.	Per Cent Atten- dance	Enrol- ment	A. D. A.	Per Cent Atten- dance	Enrol- ment.	A. D. A.	Per Cent Atten- dance
1910-11	34	25	89.5	50	28.5	75.5	45	31	81.5	404	266.7	81.9
1915-16	22	15.4	80.7	41	23.9	85.4	40	19.2	69.2	578	379.5	80.7
1916-17	17	13.5	90.9	37	25.4	83.7	40	27.7	76.7	592	440.1	83.2
1917-18	22	12.8	75.2	24	13.2	74.8	46	16.1	45.1	682	450.5	80.2
1918-19	26	16.7	81.5	28	18.3	85.1				716	493.6	87.
1919-20	33	19.6	77.3	29	19.3	79.4				747	523.7	83.7
1920-21	38	20.8	85.0	25	19.2	90.2				776	564.9	87.
*1921-22	24			19								

*Enrollment—November 30, 1921.

(1) Enrollment gives all pupils enrolled during the year.

(2) Average daily attendance.

(3) Per cent which the actual days attended are of the possible days attendance.

(4) Eldridge Park School opened 1915-16.

(5) Bakersville pupils transported to Slackwood after 1917-18.

Relation Between School Enrolment and Average Daily Attendance

For the eleven year period, 1910-1921, the elementary school enrolment has increased from 404 to 732. The average daily attendance has increased from 267 to 565 in 1920-1921. The percentage of attendance has increased from approximately 82% in 1910-1911 to 87% in 1920-1921. The great increase in the per cent of attendance came in 1918-1919 when the pupils of Bakersville section were for the first time transported to Slackwood. This high percentage was not maintained in 1919-1920 but was again found possible in 1920-1921. The enrolment for the period 1910-1921 has increased 90% in the Lawrenceville school, 70% in the Slackwood school, 43% in the Eldridge Park school (1915-1921), 10% in the Rosedale school and has decreased about 50% in the Clarksville school. Some of these percentages have been affected by the institution of school transportation. The changes are based on the enrolment for 1920-1921 since the final figure for 1921-1922 is not yet available.

The relationship between enrolment and average daily attendance for each of the existing schools and for Lawrence Township as a whole is shown in Table VI.

Average Daily Attendance

Much school time is lost through the irregular attendance of pupils. In the state report for 1919-1920, Lawrence Township is listed as having a per cent of attendance of 84.6. Hopewell Township, Princeton Borough, Hamilton Township, East Windsor Township and Trenton City have percentages of attendance which are higher than that of Lawrence Township. The percentage of attendance in Trenton City reaches 88.6. It is clear that Lawrence Township should take measures to provide for more regular attendance.

Residential Distribution of School Population

Each dot on Map No. 2 indicates the approximate residential location of each child attending the elementary schools of Lawrence Township. The distribution of children according to residences was made with the assistance of the teachers in each grade. The location of each dot gives the approximate residence of one child. Here is clearly shown the elementary school problem for the district.

PART II

WEALTH AND SCHOOL SUPPORT

Among the more than 500 school districts in the state, Lawrence Township occupies positions as follows:—*

In net assessed valuations,** Lawrence ranks	132nd
In number of pupils enrolled, “ “	114th
In state apportionment, “ “	110th
In state apportionment per pupil, “ “	184th
In local tax raised for schools, “ “	140th
In local tax raised per pupil, “ “	317th

It is interesting to note that although Lawrence ranks as high as 184th in state apportionment per pupil, she ranks as low as 317th in local tax per pupil. In net assessed valuation Lawrence ranks 132nd, but in local tax raised for schools she ranks only 140th.

Lawrence Township seems to have fallen below the average in the amount of money available per pupil and in the amount of local tax raised per pupil. This is shown below:—

Average amount available per pupil in New Jersey	\$83.18
Average amount available per pupil in Mercer County	\$84.06
Amount available per pupil in Lawrence Township	\$62.31
Average amount of local tax raised per pupil in N. J.	\$63.27
Amount of local tax raised per pupil in Lawrence Township—	\$45.94

For purposes of detailed comparisons with other school districts in the state, those having a student enrolment ranging from 845 to 1,025 were selected for comparison with Lawrence Township. In all there are twenty-one of these districts with Lawrence Township ranking eleventh in the number of students enrolled. It will be noted that

* Fifth Annual Report of the State Board of Taxes and Assessments for the year ending June 30th, 1920. Report No. 46 of the Business Manager of the New Jersey Department of Public Instruction.

** In this report the term “net assessed valuation”, as used, means net valuation on which county, state and school taxes are apportioned.

TABLE VII
LAWRENCE TOWNSHIP COMPARED WITH OTHER SCHOOL DISTRICTS OF NEW JERSEY IN CERTAIN ITEMS OF FINANCE
Twenty Districts Which Approximate Lawrence Township In Number Of Pupils Enrolled

County	District	*Number of Pupils in District	Net Assessed Valuation	Net Valuation Per Pupil	Local Tax	Local Tax Per Pupil	State Appor-tion-ment	State Appor-tion-ment Per Pupil
Essex	Caldwell	1,025	3,418,151	3,335	73,137.19	71.35	24,970.09	24.36
Bergen	Bergenfield	1,002	3,101,356	3,095	56,700.00	56.59	13,217.02	13.19
Morris	Boonton	1,002	3,467,884	3,461	78,725.00	78.56	13,040.97	13.01
Sussex	Franklin	1,001	8,957,603	8,907	68,800.00	68.63	10,387.07	10.38
Passaic	Hawthorne	992	3,683,863	3,714	83,486.35	84.16	18,909.24	19.06
Monmouth	Freehold	990	3,967,008	4,007	48,950.00	49.34	20,624.80	20.79
Essex	Glen Ridge	909	9,384,498	9,479	135,991.83	137.37	26,289.82	26.56
Bergen	Bogota	963	3,771,177	3,916	76,390.32	79.33	12,882.41	13.38
Somerset	Bernards	960	7,009,512	7,302	95,471.31	99.45	22,988.82	23.95
Passaic	Wanaque	934	2,626,231	2,812	43,137.63	46.19	15,094.53	16.16
Mercer	Lawrence	932	3,031,870	3,253	42,820.00	45.94	15,260.91	16.37

TABLE VII—Continued

Gloucester	Franklin	932	1,449,682	1,555	44,523.32	47.42	11,976.05	12.75
Cape May	Wildwood City	921	7,493,468	8,078	69,955.00	67.27	21,741.02	23.61
Essex	Milburn	910	8,279,380	9,098	115,717.50	127.16	24,163.50	26.55
Bergen	Carlstadt	906	2,389,066	2,637	30,407.62	33.56	12,867.71	14.20
Monmouth	Keyport	899	2,526,772	2,811	35,000.00	38.93	14,993.12	16.68
Camden	Clementon	887	1,777,485	1,027	41,329.42	46.59	13,422.29	15.13
Sussex	Newton	887	3,357,833	3,829	59,672.52	67.27	10,764.19	12.14
Morris	Madison	882	4,444,885	5,040	74,200.00	84.13	11,951.40	13.55
Hudson	Secaucus	862	4,293,737	4,981	57,075.42	66.21	24,906.26	28.89
Mercer	Princeton Borough	845	8,653,669	10,241	75,484.08	89.33	18,798.13	22.25

*The number of pupils given in the Commissioner's report 1920-21 is used.

Data for columns 1, 4, 5, 6 and 7 taken from report No. 46 of the Business Manager of the Department of Public Instruction of New Jersey, 1921.

Data for column 2 taken from the Fifth Annual Report of the State Board of Taxes and Assessments for the year ending June 30, 1920.

Data of column 3 derived from columns 1 and 2.

the highest net assessed valuations in these twenty-one communities exceed \$8,000,000, and \$9,000,000, that the net valuation per pupil is as high as \$10,000, and that the local tax runs as high as \$135,000, with \$137 as the highest local tax per pupil. The lowest tax per pupil is \$33, and the lowest local tax is \$30,000. For this same year, 1920-1921, the local tax per pupil of Lawrence Township was approximately \$46, while the total local tax was \$42,820. The state apportionment in these twenty-one districts varied for the year 1920-1921 from \$10,764, to \$26,289. Lawrence Township's apportionment of funds from the state for this same year was \$15,062.91. The state apportionment per pupil for Lawrence Township was \$16.37, while other communities ranged from \$10.38 to \$48.89 in the apportionment per pupil allotted by the state.

To see more clearly the position which Lawrence Township holds when compared with other communities which have a similar pupil load, the facts of Table VII have been converted into ranks as shown in Table VIII. According to this table, Lawrence Township receives state aid in direct proportion to its rank in pupils as might be expected, but its rank in net valuation, and particularly in the local tax raised per pupil, places it very distinctly in the lower part of this group of comparable districts in the state of New Jersey.

Comparisons on the Basis of Wealth For further comparison, twenty-one districts in New Jersey were selected having approximately the same wealth. Lawrence Township is the median township of this group. In Table IX, this group of twenty-one townships and boroughs is shown together with their pupil loads, their net valuations per pupil, the local tax raised in each case, the local tax per pupil and the state apportionment per pupil. The very great variations in the ability of the districts in New Jersey to support schools is clearly brought out in this table. In these twenty-one districts, with minor variations in the net assessed valuations, the number of pupils to be educated in each district varies from 85 to 1,822, the net valuation per pupil from \$1,643 to \$36,097, the local tax from \$6,900 to \$92,369, the local tax per pupil from \$18.76 to \$101.54 and the state apportionment per pupil from \$7.82 to \$26.27. The rank of Lawrence Township on each of these items is shown in Table X. Here again, it is evident that Lawrence Township is supporting its schools by means of local tax to a less degree than its rank in net valuation in this group of districts would warrant.

TABLE VIII

LAWRENCE TOWNSHIP RANKED IN COMPARISON WITH OTHER SCHOOL DISTRICTS OF NEW JERSEY WITH RESPECT TO THE FINANCIAL ITEMS GIVEN IN TABLE VII

County	District	Rank in No. Pupils in District	Rank in Net Valuation	Rank in Net Valuation Per Pupil	Rank in Local Tax	Rank in Local Tax Per Pupil	Rank in State Ap- portionment	Rank in State Ap- portionment per Pupil
Essex	Caldwell	1	13	14	9	9	2	4
Bergen	Bergenfield	2	15	16	14	14	14	17
Morris	Boonton	3	12	13	5	8	15	18
Sussex	Franklin	4	2	4	11	10	21	21
Passaic	Hawthorne	5	11	12	4	5	8	9
Monmouth	Freehold	6	9	9	15	15	7	8
Essex	Glen Ridge	7	1	2	1	1	1	2
Bergen	Bogota	8	10	10	6	7	16	16
Somerset	Bernards	9	6	6	3	3	5	5
Passaic	Wanaque	10	17	17	17	18	11	12
Mercer	Lawrence	11	16	15	18	19	10	11
Gloucester	Franklin	12	21	20	16	16	18	19
Cape May	Wildwood City	13	5	5	10	11	6	6
Essex	Milburn	14	4	3	2	2	4	3
Bergen	Carlstadt	15	19	18	21	21	17	14
Monmouth	Keyport	16	18	19	20	20	12	10
Camden	Clementon	17	20	21	19	17	13	13
Sussex	Newton	18	14	11	12	12	20	20
Morris	Madison	19	7	7	8	6	19	15
Hudson	Secaucus	20	8	8	13	13	3	1
Mercer	Princeton Bor.	21	3	1	7	4	9	7

TABLE IX
LAWRENCE TOWNSHIP COMPARED WITH OTHER SCHOOL DISTRICTS OF NEW JERSEY IN CERTAIN ITEMS OF FINANCE
Twenty Districts which Approximate Lawrence Township in Net Assessed Valuation

		1	2	3	4	5	6	7
County	District	Net Assessed Valuation (a)	Number Pupils in District (b)	Net Valuation Per Pupil (c)	Local Tax (b)	Local Tax per Pupil (b)	State Apportionment (b)	State Apportionment per Pupil (b)
Mercer	Ewing Township	3,309,133	699	4,734	50,374.49	72.07	16,343.60	23.38
Gloucester	Glassboro Township	3,296,658	823	4,006	49,737.50	59.83	11,029.40	13.40
Essex	Borough of Verona	3,244,901	598	5,426	53,154.67	88.89	12,814.98	21.43
Atlantic	Pleasantville	3,220,257	1,595	2,019	48,761.30	30.57	40,941.52	25.67
Burlington	Northampton	3,192,771	1,145	2,788	68,127.00	59.50	9,989.16	8.72
Passaic	Pompton Lakes Bor.	3,118,834	531	5,874	32,170.00	60.59	8,137.81	15.33
Middlesex	South River Borough	3,117,852	1,369	2,227	79,354.71	57.97	17,039.22	12.45
Bergen	Bergenfield Borough	3,101,356	1,002	3,095	56,700.00	56.59	13,217.02	13.19
Passaic	Wayne Township	3,093,002	603	5,129	42,237.50	70.05	10,758.20	17.84
Monmouth	Allenhurst Borough	3,068,203	85	36,097	6,900.00	81.18	665.00	7.82
Mercer	Lawrence Township	3,031,870	932	3,253	42,820.00	45.94	15,260.91	16.37

TABLE IX—Continued

County	District	Net Assessed Valuation (a)	Number Pupils in District (b)	Net Valuation Per Pupil (c)	Local Tax (b)	Local Tax per Pupil (b)	State Apportionment (b)	Local Apportionment per Pupil (b)
Monmouth	Bradley Beach Bor.	2,998,763	631	4,752	27,726.00	43.94	8,281.29	13.12
Atlantic	Hammonton	2,993,778	1,822	1,643	55,334.98	30.37	47,865.64	26.27
Bergen	Delford Borough	2,959,170	259	11,425	26,300.00	101.54	6,066.97	23.42
Bergen	Fairview Borough	2,926,475	1,465	1,998	92,369.44	63.05	18,494.11	12.62
Middlesex	Raritan Borough	2,920,231	1,288	2,267	90,168.25	70.01	21,215.45	16.47
Camden	Merchantville Bor.	2,910,329	465	6,259	27,637.85	59.44	9,329.30	19.87
Gloucester	Paulsboro Borough	2,908,630	1,053	2,762	42,232.94	40.11	9,753.10	9.26
Salem	Penns Grove Borough	2,896,771	1,124	2,577	21,091.65	18.76	11,231.10	9.99
Camden	Audubon Borough	2,868,089	994	2,885	71,763.02	72.20	18,445.09	18.56
Mercer	Hopewell Township	2,831,473	1,209	2,342	55,077.49	46.05	31,205.30	25.81

(a) Data for column 1 taken from the Fifth Annual Report of the State Board of Taxes and Assessments for the year ending June 30, 1920.

(b) Data for columns 2, 4, 5, 6 and 7 taken from report No. 46 of the Business Manager of the Department of Public Instruction of New Jersey, 1921.

(c) Data of column 3 derived from columns 1 and 2.

TABLE X
LAWRENCE TOWNSHIP RANKED IN COMPARISON WITH OTHER SCHOOL DISTRICTS OF NEW JERSEY WITH RESPECT TO THE
FINANCIAL ITEMS GIVEN IN TABLE IX

County	District	Rank in Net Val- uation	Rank in No. Pupils in District	Rank in Net Val- uation per Pupil	Rank in Local Tax	Rank in Local Tax per Pupil	Rank in State Ap- portionment	Rank in State Ap- portionment per Pupil
Mercer	Ewing Township	1	14	8	10	5	8	5
Gloucester	Glassboro Township	2	13	9	11	10	13	13
Essex	Borough of Verona	3	17	5	9	2	11	6
Atlantic	Pleasantville	4	2	19	12	19	2	3
Burlington	Northampton	5	7	13	5	11	15	20
Passaic	Pompton Lakes Bor.	6	18	4	16	9	19	12
Middlesex	South River Borough	7	4	17	3	13	7	17
Bergen	Bergenfield Borough	8	10	11	6	14	10	14
Passaic	Wayne Township	9	16	6	14	6	14	9
Monmouth	Allenhurst Borough	10	21	1	21	3	21	21
Mercer	Lawrence Township	11	12	10	13	16	9	11
Monmouth	Bradley Beach Bor.	12	15	7	17	17	18	15
Atlantic	Hammonton	13	1	21	8	20	1	1
Bergen	Delford Borough	14	20	2	19	1	20	4
Bergen	Fairview Borough	15	3	20	1	8	5	16
Middlesex	Raritan Borough	16	5	18	2	7	4	10
Camden	Merchantville Bor.	17	19	3	18	12	17	7
Gloucester	Paulsboro Borough	18	9	14	15	18	16	19
Salem	Penns Grove Borough	19	8	15	20	21	12	18
Camden	Audubon Borough	20	11	12	4	4	6	8
Mercer	Hopewell Township	21	6	16	7	15	3	2

When compared on the same items as utilized in the preceding tables with the eight other townships and boroughs of Mercer County (Trenton excluded), as has been done in Table XI, Lawrence Township ranks 3rd in the number of pupils in the district, 6th in net valuation, 7th in the valuation per pupil, 9th in the local tax per pupil, 9th in the state apportionment per pupil, 6th in the local tax rate and 6th in the total state apportionment. From the amount of local tax per pupil, it is clear that Lawrence Township is making less local effort for the support of its schools than the other townships in the county.

Table XII concerns the study of Lawrence Township only on certain important financial items. The state school tax paid by the district has increased only slightly since 1917. During the same interval of time, the amount received by Lawrence Township from the state has increased more than 50%. The local tax rate has increased more than 200%, but the net valuations have increased only slightly from the period 1917-1922, during a period when the net valuation in the state increased 12.7%. These facts have been graphically represented in Chart No. 2.

*Lawrence Township's
Position
in the County*

Bearing in mind that Lawrence Township's assessments have not increased in the last few years, the following facts are given:

Lawrence has 2% of the wealth of the county, raises $2\frac{1}{2}\%$ of the local tax and has 3.4% of the children of Mercer County.

*State Com-
parison*

The amount available from all sources for the instruction of every child in the state is \$83.18. Lawrence Township has made available for the support of each child \$62.31; thus Lawrence Township is spending only 75% as much per pupil as is available in the state for the average child.

*Bonded Indebted-
ness*

During the period 1907-1921, the bonded indebtedness of Lawrence Township has been reduced from \$39,000, to \$27,000, according to the 1921 report of the county superintendent.

Survey of Public School System

TABLE XI

COMPARISON OF THE LAWRENCE DISTRICT WITH THE OTHER DISTRICTS OF MERCER COUNTY WITH THE EXCEPTION OF THE CITY OF TRENTON

District	1	2	3	4	5	6	7.	Rank in No. Pupils in District	Rank in Net Valuation	Rank in Valuation per Pupil	Rank in Local Tax per Pupil	Rank in State Apportionment per Pupil	Rank in Local Tax	Rank in State Apportionment
Hamilton	3,540	12,812,466	5,044	60.08	17.11	212,671.52	60,586.11	1	1	4	6	8	1	1
Hopewell	1,209	3,861,046	3,200	46.05	25.81	55,677.49	31,205.30	2	3	8	8	5	3	2
Lawrence	932	3,031,870	3,253	45.94	16.37	42,820.00	15,260.91	3	6	7	9	7	6	6
Princeton Bor.	845	8,653,669	10,241	89.33	22.25	75,484.08	18,798.13	4	2	2	1	9	2	4
Ewing	699	3,309,133	4,734	72.07	23.38	50,374.49	16,343.60	5	5	5	2	6	4	5
East Windsor	691	905,317	3,101	63.91	28.11	44,165.00	19,423.72	6	9	9	4	3	5	3
West Windsor	319	1,906,698	5,977	69.55	36.48	22,187.50	11,636.92	7	7	3	3	1	7	7
Washington	297	1,141,007	3,841	56.57	27.76	16,800.00	8,245.49	8	8	6	7	4	9	9
Princeton Twp.	280	3,434,062	12,265	62.36	30.79	17,460.00	8,622.17	9	4	1	5	2	8	8

Data for columns 1, 4, 5, 6, 7 are taken from Report No. 46 of the Business Manager of the Department of Public Instruction of New Jersey.

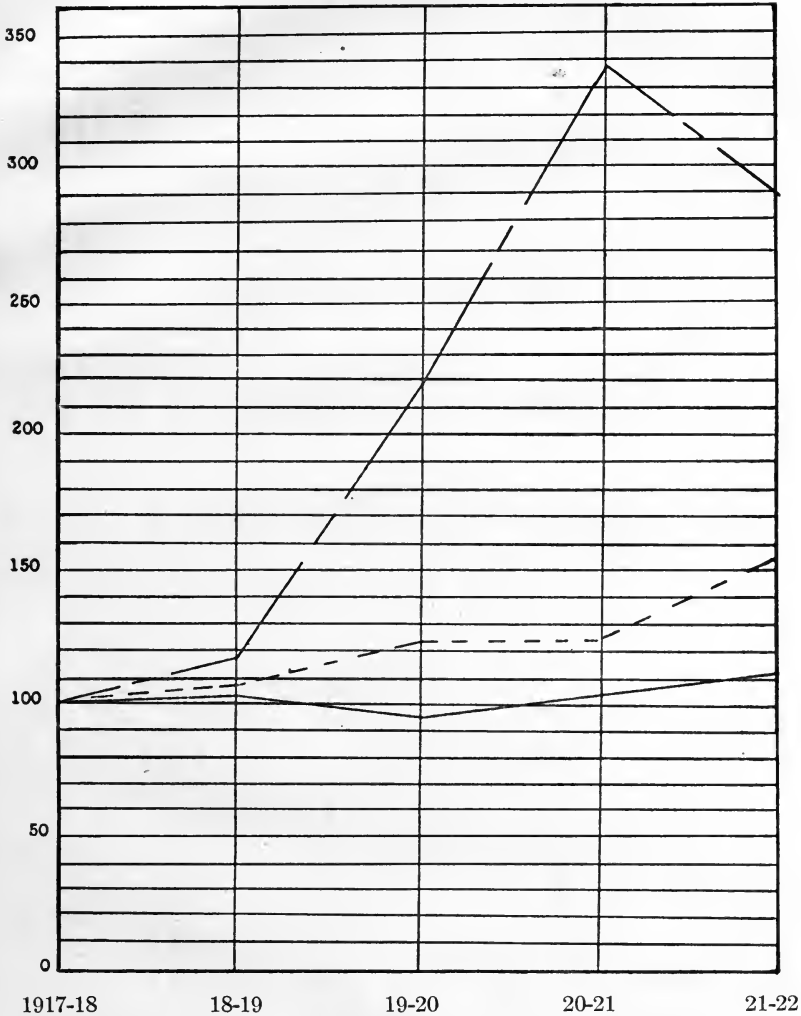
*Data for column 2 are taken from the Fifth Annual Report of the State Board of Taxes and Assessments for the year ending June 30, 1920.

Data for column 3 are derived from 1 and 2.

CHART No. 2.

Comparison of Per Cent of Increase in Net Valuation, Tax Rate and State Apportionment in Lawrence Township, New Jersey From 1917-18 to 1921-22.*

Per Cent



- Per cent of increase in net valuation of property.
- Per cent of increase in school tax rate.
- . - . - . Per cent of increase in amount received from state.

*Percentages are computed upon 1917-18 as the base.

TABLE XII
COMPARISON OF IMPORTANT FINANCIAL ITEMS OF LAWRENCE TOWNSHIP OVER A PERIOD OF YEARS

	Net* Valuation	% of ** Increase	State School Fund	% of ** Increase	Total Ap- portionment (State School, Moneys	% of ** Increase	Local District Tax	% of ** Increase	Local Rate Per \$100	% of ** Increase	Bonded Indebted- ness
1917-18	2,807,425	0	7,298.00	0	12,164.51	0	12,620	0	.467	0	39,000.00
1918-19	2,854,585	.016	7,482.07	.026	13,139.47	.08	15,550	.316	.544	16.4	36,000.00
1919-20	2,739,980	-.012	7,870.69	.094	15,714.82	20.9	27,870	120.8	1.017	117.7	33,000.00
1920-21	2,912,680	.037	7,170.60	-.016	15,714.82	20.9	46,176	265.9	1.585	239.4	30,000.00
1921-22	3,158,685	.102	8,477.70	.163	18,759.37	54.3	42,820	239.3	1.355	190.1	27,000.00

The data for this table are taken from the tables furnished by the County Superintendent.

*Net Valuation on which Local School Taxes are Assessed.

**Percent of increase based on year 1917-18.

PART III

CLASSIFICATION AND PROGRESS OF CHILDREN

The teachers' registers for a number of years were consulted and a distribution of age groups for the children enrolled in the Lawrence Township schools was procured as given in Table XIII. It will be noted that the seven year olds have been the largest age group from 1917 to the present school year. At present, there are more eight and ten year olds registered than there are seven year olds. The dropping off in the age groups becomes very evident with the beginning of the thirteenth year of age. The reason why the withdrawals from school begin at this point in this table is due to the fact that the high school enrolment is not included. Since relatively few children begin to go to school in Lawrence Township before six years of age and since there is no evidence in the figures which are submitted later that there has been any great percentage of rapid promotion in the school system and since so many of them go through the reception grade making the elementary course really a nine year course, the rapid drop in attendance of the 13, 14 and 15 year old children has additional significance. Other significant elements in this table are the percentages of change over the period 1915-1920 in the seven to the eleven year old group inclusive and the dropping off when the twelve year old group is reached.

The facts shown in Table XIII are given in Table XIV so that the percentage which each age group bears to total enrolment is shown.

In Chart No. 3, the age distribution for pupils for 1921 is shown. It is rather strange to find the nine year olds fewer in number than the seven and eight year olds and also to find the eleven and twelve year olds dropping so far below the ten year olds. Some of the reasons for these age conditions may be the moving of the younger families into the township and the failure of the schools to keep the interest of children of the older group. The need for discovering, through the agency of a permanent continuing census, all of the children who reside within the township so that comparison may be made with the school enrolment figures again becomes apparent in this chart.

Survey of Public School System

TABLE XIII

DISTRIBUTION OF AGE GROUPS FOR THE YEARS 1910-11 AND 1915-16 TO 1921-22
WITH CHANGES AND PER CENT OF CHANGE.

Lawrence Township, Mercer County, New Jersey.
(Elementary Schools Only)

Age	1910- 1911	1915- 1916	1916- 1917	1917- 1918	1918- 1919	1919- 1920	1920- 1921	1921- *1922	Change from 1910 to 1915	Per Cent of Change 1910 to 1915	Change from 1915 to 1920	Per Cent of Change 1915 to 1920
**4 5	3	17	13	20	12	12	9	1	14	466	-8	-47
5-6	32	52	56	62	54	76	59	46	20	62	7	13
6-7	45	70	71	75	86	86	88	71	35	78	18	26
7-8	32	57	59	82	89	90	102	82	25	78	45	79
8-9	51	58	61	70	89	82	90	88	7	14	32	55
9-10	37	64	50	70	78	86	93	79	27	73	29	45
10-11	45	58	61	60	60	73	87	91	3	7	29	50
11-12	45	50	68	73	59	69	88	77	5	11	38	76
12-13	31	45	49	68	69	66	59	77	14	45	14	31
13-14	33	56	52	43	72	57	54	55	23	70	-2	-4
14-15	29	28	34	37	23	37	34	38	-1	-3	6	21
15-16	12	17	13	18	16	12	13	9	5	42	-4	-23
16-17	5	4	3	2	2	1		4	-1	-20	-4	-100
17-18	3	1	2	2	2				-2	-66	-1	-100
18-19	1	1									-1	-100
Total	404	578	592	682	709	747	776	718	174	43	198	34

*Enrolment for 1921-22 was taken up to January 1922.

**Includes children four years of age and not yet five.

Other groups similarly interpreted.

TABLE XIV

DISTRIBUTION IN PERCENTAGES OF AGE GROUPS FOR THE YEARS 1910-11 AND
1915-16 TO 1921-22Lawrence Township, Mercer County, New Jersey
(Elementary Schools Only)

Age	1910- 1911	1915- 1916	1916- 1917	1917- 1918	1918- 1919	1919- 1920	1920- 1921	1921- 1922*	Change from 1910 to 1915	Change from 1915 to 1920
**4-5	.8	2.9	2.2	2.9	1.7	1.6	1.2	.2	2.1	-1.7
5-6	7.9	9.1	9.6	9.1	7.6	10.1	7.6	6.4	1.2	-1.5
6-7	11.2	12.1	12.0	11.0	12.1	11.4	11.3	9.9	.9	-.8
7-8	7.9	9.9	9.9	12.0	12.5	12.0	13.2	11.4	2.0	3.3
8-9	12.6	10.1	10.3	10.3	12.5	10.8	11.6	12.2	-2.5	1.5
9-10	9.2	11.0	8.4	10.3	11.0	11.4	12.1	11.0	1.8	1.1
10-11	11.2	10.1	10.3	8.8	8.5	10.2	11.2	12.6	-1.1	1.1
11-12	11.2	8.7	11.5	10.7	8.3	9.6	11.3	10.7	-2.5	2.6
12-13	7.5	7.8	8.3	10.0	9.8	8.8	7.6	10.7	.3	-.2
13-14	8.2	9.7	8.8	6.3	10.2	7.6	6.9	7.7	1.5	-2.8
14-15	7.2	4.8	5.7	5.4	3.2	4.8	4.4	5.3	2.4	-.4
15-16	3.0	2.9	2.2	2.6	2.3	1.6	1.6	1.3	.1	-1.3
16-17	1.2	.7	.5	.3	.3	.1		.6	-.5	-.7
17-18	.7	.1	.3	.3					-.6	-.1
18-19	.2	.1							-.1	-.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	5.0	0.0

*Enrolment for 1921-22 was taken up to January 1922.

**Includes children four years of age and not yet five.

Other groups similarly interpreted.

Enrolment by Grades The elementary school organization for Lawrence Township has been so developed that there are nine elementary grades instead of the customary eight grades. The so-called "reception grade" into which many children enter before being accepted in the first grade includes children four and a half years of age to children nine years of age. After this grade, the educational organization follows the usual eight grade plan.

In Table XV will be found the distribution of pupils by grades for the period 1910-1911 and for each year of the period 1915-1921. During the period 1915-1920, the reception grade has increased 13%, while the first grade has been reduced 6%, indicating the stress which

is being placed upon entrance in the reception grade before the first grade is reached. The largest percentages of increase in grade enrolment during this period have taken place in grades 3 to 7. The 32% increase in total population for the period 1910-1915, shown in Table V, has evidently already affected grades 3 to 7. In the very near future, it will affect grades 7 and 8 so that there must be expected a very large percentage of increase.

TABLE XV

DISTRIBUTION OF PUPILS BY GRADES FOR THE YEARS 1910-11 AND 1915-16 TO 1921-22, Lawrence Township, Mercer County, New Jersey.

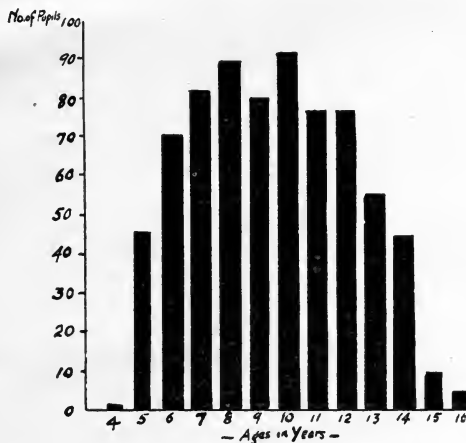
Grade	1910- 1911	1915- 1916	1916- 1917	1917- 1918	1918- 1919	1919- 1920	1920- 1921	1921*	Change from 1911 to 1915	Per Cent of Change	Change from 1915 to 1920	Per Cent of Change
Re- cep- tion	85	126	133	174	164	169	142	94	41	48	16	13
I	57	82	55	74	75	49	77	82	25	44	-5	-6
II	51	52	86	95	74	118	59	93	1	2	7	13
III	49	82	54	91	99	84	133	62	33	67	51	62
IV	34	69	73	58	76	101	101	104	35	103	32	46
V	57	60	70	82	90	97	95	101	3	5	35	58
VI	30	49	46	43	43	59	86	76	19	63	37	76
VII	23	32	43	39	47	39	53	64	9	39	21	66
VIII	18	26	32	26	41	31	30	42	8	44	4	15
Total	404	578	592	682	709	747	776	718	174	43	198	34

*Yearly enrolment for 1921-22 school year taken up to January 1922.

Table XVI gives the situation shown in Table XV in terms of the percentage of total enrolment for any year found in each grade of the elementary school. The same tendencies which were noted in the other table may be followed through this table. It is particularly noticeable that the average percentage for each grade shows a marked difference in the percentages of the grades "reception to 5" and between the grades 6 to 8. The fact that less than 5% of the children have been in the 8th grade during this period leads to these questions:—

Does the nine grade system tire pupils out before they reach the 8th grade? Have all the children of the community been enrolled in school during their compulsory school ages? Does the failure to provide 7th and 8th grades in all of the schools affect the percentage of enrolment in these grades? Has the holding power of the school suffered because of the failure to properly develop the curriculum or to offer children the advantages that are being offered in the nearby city of Trenton?

CHART NO. 3.



Distribution of Pupils in Lawrence Township, Mercer County, New Jersey
By Ages for 1921.
(Elementary Pupils only)

Reception Grade

The large percentage of children in the reception grade for each of the years shown in Table XVI leads to the question whether the reception grade has not in large part supplanted the first grade. It will be noted that 21% is the average for the reception grade, while 10.9% has been the average for the first grade for this particular period. The reception and first grades have on an average included 32% of all the elementary children enrolled in the elementary schools of Lawrence Township. Since the reception grade is merely supplementary to the first grade, the value of this reception grade can be seriously questioned. The decrease in the percentage of children in the 3rd grade for the year 1921-1922 and similar marked decreases at other periods for other grades lead to the

suggestion that more careful analysis be made of the promotional program than has been possible in this study.

TABLE XVI

PERCENTAGE DISTRIBUTION OF PUPILS BY GRADES FOR THE YEARS 1910-11 AND 1915-16 TO 1921-22

Lawrence Township, Mercer County, New Jersey

Grade	1910 to 1911	1915 to 1916	1916 to 1917	1917 to 1918	1918 to 1919	1919 to 1920	1920 to 1921	1921* to 1922	Average
Reception	21.1	21.8	22.4	25.5	23.2	22.6	18.3	13.2	21.0
I	14.1	14.2	9.4	10.8	10.6	6.9	9.9	11.3	10.9
II	12.7	9.0	14.5	13.9	10.5	15.8	7.6	11.5	11.9
III	12.1	14.2	9.1	13.4	13.9	11.2	17.1	9.1	12.6
IV	8.4	11.9	12.3	8.5	10.8	13.5	13.0	14.7	11.6
V	14.1	10.3	11.9	12.1	12.6	12.9	12.2	13.9	12.5
VI	7.4	8.5	7.9	6.3	6.1	7.8	11.1	11.5	8.3
VII.	5.8	5.5	7.2	5.7	6.6	5.2	6.8	8.9	6.5
VIII	4.3	4.5	5.4	3.8	5.7	4.1	3.9	5.9	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Enrolment for 1921-22 was taken up to January 1922.

Inspection of Chart No. 4 shows a valley in the curve of enrolment at the 2nd grade. This salient in the curve is, without doubt, caused by spreading the enrolment of grades 1 and 2 over three grades as it is being done today in Lawrence Township.

Overlapping in Age Groups Table XVII presents the age grade statistics for the school year 1921-1922. The age variability for all of the grades is exceedingly marked, even covering a span of seven years for the 2nd and 4th grades. It should be noted that two children, nine years of age, are still in the reception grade, that five children who are ten and ten and a half years of age are still in the first grade and that one child, thirteen years of age, is still in the 2nd grade.

In making this age grade table, one and a half years were taken as the normal age span for any single grade. The children older than those within the normal age group are called over-age for each grade and those younger than the normal age span are called under-age for

each grade group. The percentage of over-age children in the Lawrence Township schools varies from 24% in the 8th grade to 45% in the 6th grade. The other grades range between 35% and 39%. The total percentage of children over age is 37. The percentage of children who are under-age for their grades varies from 1% for the reception grade to 25% for grade 4.

In the study of the Hackensack schools made in June 1921, 41.9% of all the elementary school children were over-age on the basis of the one and one-half year age span.

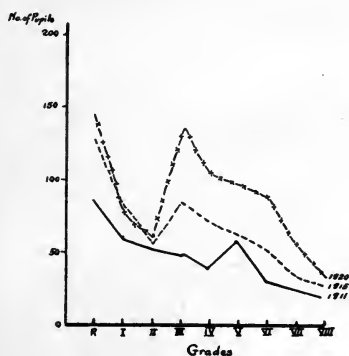
Variation in Over-Age Conditions Over a Period of Years

In Table XVIII will be found the present distribution of pupils normal age, over age and under age for the years 1910-1911 and for the six years from 1915-1916 on. One of

the most significant problems requiring solution in any school system is the reduction of the number of over age children and the correspond-

ing increase of the number of under age children. It is significant to point out from Table XVIII that the percentages of change which have taken place in the over age section of this table for the period 1915-1921 indicate decreases in over age children for all grades except 5 and 6, but the total change in over age conditions from the year 1915-1916 to the year 1921-1922 has been a zero change. The percentage of children who are under age for their grades has increased slightly during this same period, but this is balanced by slight decrease, during this same period, of the percentage of children who are normal age. Significant percentages are those for grades 3, 5 and 8 of the under-age section of Table XVIII where very large percentage increases have been made for the period 1915 to 1921. These large percentages are partially due to the small base upon which the percentages were made.

CHART NO. 4



Changes in Enrolment by Grades for 1911, 1915 and 1920

TABLE XVII

AGE GRADE TABLE FOR THE ELEMENTARY SCHOOLS OF LAWRENCE TOWNSHIP,
NEW JERSEY. COMPILED JAN. 18, 1922.

School Year 1921-22. Ages Computed as of Sept. 1, 1921.

Grades	Rec.	1	2	3	4	5	6	7	8	
Ages	4y-9m to 6y-3m	5y-9m to 7y-3m	6y-9m to 8y-3m	7y-9m to 9y-3m	8y-9m to 10y-3m	9y-9m to 11y-3m	10y-9m to 12y-3m	11y-9m to 13y-3m	12y-9m to 14y-3m	
4½	1									1
5	15									15
5½	30	1								31
6	15	12	2							29
6½	16	21	7							42
7	8	16	16	4	1					45
7½	7	8	17	5						37
8	2	6	16	10	12					46
8½		3	11	14	14					42
9	2	6	11	8	16	3				46
9½		4	6	7	6	10				33
10		4	5	7	17	11	2			46
10½		1		1	13	22	8			45
11			1	6	10	17	13		1	48
11½					7	12	9			29
12					3	9	10	15	2	39
12½					1	11	12	10	4	38
13			1		1	3	5	15	11	36
13½					1	1	7	5	5	19
14					2	1	6	9	9	27
14½							3	4	4	11
15						1	1	4	2	8
15½								4	1	2
16								1	1	1
16½									2	2
17										1
17½										2
Total	94	82	93	62	104	101	76	64	42	718
N. A.	60	49	49	32	39	50	32	40	25	376
O. A.	33	32	35	21	38	38	34	23	10	264
U. A.	1	1	9	9	27	13	10	1	7	78
% N. A.	64	60	53	50	38	49	42	63	60	52
% O. A.	35	39	37	36	37	38	45	36	24	37
% U. A.	1	1	10	14	25	13	13	1	16	11

N. A.—Normal Age. O. A.—Overage. U. A.—Underage.

TABLE XVIII

THE PERCENTAGE DISTRIBUTION OF PUPILS OF NORMAL AGE, OVER AGE AND UNDER AGE FOR THE YEARS 1910-11, 1915-16 to 1921-22.

Lawrence Township, New Jersey

Normal Age

<i>Grades</i>	<i>R</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>Total</i>
1910-11	56	35	45	53	44	40	40	9	56	44
1915-16	57	49	40	59	43	67	59	38	54	53
1916-17	62	69	45	41	30	40	46	37	44	49
1917-18	51	45	47	35	36	31	44	44	35	43
1918-19	52	44	50	57	49	32	33	51	44	47
1919-20	57	49	42	45	50	41	32	49	42	47
1920-21	54	52	55	39	54	49	50	40	70	50
1921-22	64	60	53	52	38	49	42	63	60	52
Per Cent of Change 1910-11 to 1915-16	2	40	-9	11	-2	68	48	322	-4	20
Per Cent of Change 1915-16 to 1921-22	12	24	33	-11	-12	-27	-28	65	11	-2

Over Age

<i>Grades</i>	<i>R</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	
1910-11	40	58	51	43	56	56	53	87	33	51
1915-16	30	46	46	37	40	30	31	44	42	37
1916-17	29	31	47	54	66	56	46	37	44	45
1917-18	38	49	44	58	55	69	51	49	62	50
1918-19	40	56	38	31	43	56	65	36	29	43
1919-20	36	45	40	38	40	54	61	46	23	42
1920-21	40	40	29	32	31	40	38	38	27	36
1921-22	35	39	37	31	37	38	45	36	24	37
Per Cent of Change 1910-11 to 1915-16	-25	-21	-10	-14	-29	-52	-40	-38	27	-27
Per Cent of Change 1915-16 to 1921-22	17	-15	-20	-16	-8	27	30	-18	-43	00

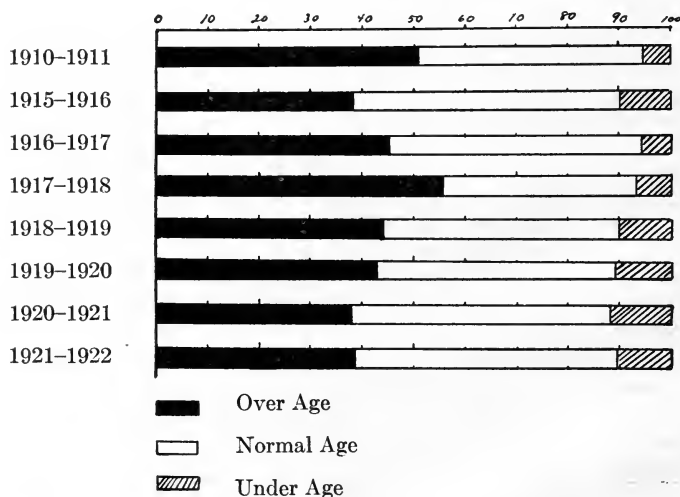
Survey of Public School System

Under Age

Grades	R	1	2	3	4	5	6	7	8	
1910-11	4	7	4	4	0	4	7	4	11	5
1915-16	13	5	14	4	17	3	11	18	4	10
1916-17	9	0	8	5	4	4	8	6	12	6
1917-18	11	6	9	7	9	0	5	7	3	7
1918-19	8	0	12	12	8	12	2	13	17	10
1919-20	7	6	18	17	10	5	7	5	35	11
1920-21	6	8	16	29	15	11	12	22	3	14
1921-22	1	1	10	17	25	13	13	1	16	11
Per Cent of Change 1910-11 to 1915-16	225	-28	250	0		-25	57	350	-63	100
Per Cent of Change 1915-16 to 1921-22	-92	-80	-29	325	47	333	18	-94	300	10

The very great discrepancy between the percentage of children who are over age and the percentage who are under age can be seen from the black and shaded portions in Chart No. 5.

CHART No. 5.



Showing the pupils in the Elementary Schools of Lawrence Township, Mercer County, New Jersey of normal age, over-age and under-age for the years 1910-1911, 1915-1916 to 1921-1922 inclusive.

TABLE XIX

SHOWING THE NUMBER OF PUPILS WHO ARE LESS THAN ONE YEAR OVER AGE,
ONE TO TWO YEARS OVER AGE AND TWO OR MORE YEARS OVER
AGE FOR THE YEARS 1910-11, 1915-16 to 1921-22 INCLUSIVE

Lawrence Township, New Jersey

Less Than One Year Over Age

Grades	R	1	2	3	4	5	6	7	8	Total	% of Enrolment
1910-11	16	8	11	5	9	17	7	12	5	90	22
1915-16	20	20	14	19	9	7	12	7	11	119	20
1916-17	25	11	25	12	21	19	10	15	9	147	25
1917-18	35	12	19	22	13	21	10	11	11	154	23
1918-19	41	21	14	15	16	21	14	11	8	161	23
1919-20	40	14	29	14	22	27	13	10	7	176	24
1920-21	37	19	11	25	14	22	13	8	7	156	20
1921-22	22	14	22	14	23	21	17	14	4	151	21

One To Two Years Over Age

Grades	R	1	2	3	4	5	6	7	8		
1910-11	11	8	6	7	6	5	5	5	1	54	13
1915-16	4	8	6	16	7	18	12	3	2	76	13
1916-17	11	4	9	9	12	11	5	7	2	70	11
1917-18	14	11	15	15	5	18	8	5	2	93	13
1918-19	19	9	8	7	9	17	11	5	4	89	12
1919-20	15	3	10	9	9	16	14	6	0	82	11
1920-21	15	12	5	2	11	11	17	7	1	81	10
1921-22	9	9	11	7	10	14	13	8	3	84	10

Two Years or More Over Age

Grades	R	1	2	3	4	5	6	7	8		
1910-11	7	11	9	12	4	10	4	3	0	60	15
1915-16	6	10	4	13	12	10	5	2	1	63	11
1916-17	3	1	6	18	15	9	6	2	3	63	10
1917-18	17	13	8	15	14	17	4	3	3	94	13
1918-19	6	12	6	10	10	12	3	1	0	60	8
1919-20	6	5	8	9	10	9	9	2	0	58	8
1920-21	5	0	1	7	6	5	3	5	0	32	4
1921-22	2	9	2	0	5	3	4	1	3	29	4

The number of pupils who are less than one year over age, one to two years over age, and two years and more over age for each grade for the period 1910 to 1921 is shown in Table XIX. The very significant fact about this table is the large number of pupils one to two years over age and two years and more over age in the reception and the first grades. The consistent piling up of over age children in grades 5 and 6 for this same period of years is a situation which ought to be given very careful attention by the teachers and the supervising principal.

Grade Progress Studies Another measure of the efficiency of school organization is the rate at which children progress through the various grades of the elementary and high school. A study of grade progress in Lawrence Township is immediately complicated by the reception grade. If the progress of children through school is measured on the basis of their being required to pass through nine grades instead of the customary eight, it is obvious that more children will make normal or regular progress in each grade than would be the case if the schools of the township were measured against the accomplishment of children in school systems organized on an eight grade basis. The difference between these two methods of interpreting the situation can be seen in Table XX.

The factual basis for making a grade progress study is the cumulative individual record card for all pupils. Such record cards were not accessible in Lawrence Township. The basic facts for the progress study in Table XX were collected by the individual classroom teachers from their knowledge of the children and also from the actual statements of the children. Because of this, the facts for individual grades are not as reliable as could be wished. The analysis of progress which children make through the grades of a school system is essential to efficient administration. The collection of complete and accurate data in this field should be considered an index in the future of good school administration in Lawrence Township.

In Table XX, the numbers and percentages of children making slow, normal and rapid progress are given on three bases, the first involving all of the children enrolled, the second involving all of those children who have at some time or other attended other school systems than the local school system and third, involving non-transfers or only those children who have always been members of the local

TABLE XX
 PROGRESS THROUGH THE GRADES, LAWRENCE TOWNSHIP
 As of Enrolment Previous to September, 1921

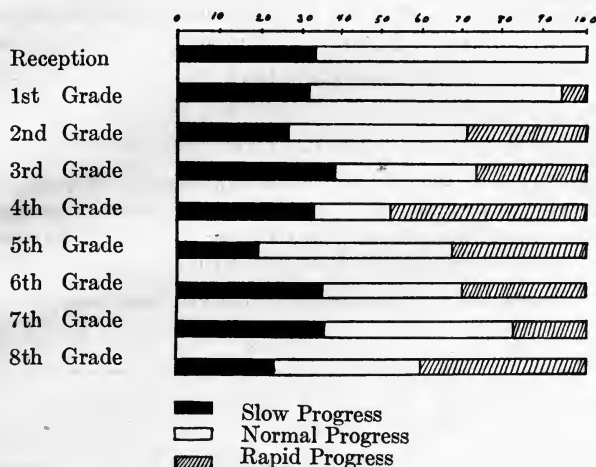
	Total Enrolment		Transfers		Non Transfers	
	On a 9 grade basis	On an 8 grade basis	On a 9 grade basis	On an 8 grade basis	On a 9 grade basis	On an 8 grade basis
No. making slow progress	212	475	106	189	106	286
No. making normal progress	331	213	86	54	245	159
No. making rapid progress	175	30	63	12	112	18
Per cent making slow progress	29	66	42	74	23	62
Per cent making normal progress	46	30	34	21	53	31
Per cent making rapid progress	25	4	25	5	24	4
Total number of pupils	718	718	255	255	463	463

school system. For each of these three groups of children, the facts are given with the elementary school considered as a nine grade school and also with the elementary school organization on an eight grade basis. The true percentage of those making slow progress is nearer 66% of the total enrolment than the 29% shown on the nine year basis. The percentage of children making slow progress of those who have been transferred into the local system is nearer the 74% indicated when the school system is considered an eight grade school system than the 42% indicated when the school system is considered a nine grade school system. In like manner, the percentage of children who have never attended any other school system who are making slow progress is more nearly indicated by the 62% figure of Table XX than the 23% figure of the same table. Reckoned on either basis, the children who have never attended any other school system progress more regularly than the children who have been transferred into the Lawrence Township schools from other school systems. A similar conclusion has resulted where studies of non-transfers and transfers have been made for other school systems.*

Charts No. 6 and No. 7 show clearly the rather satisfactory situation when progress is studied on a nine grade basis and the most unsatisfactory situation which results when progress is studied on an eight grade basis or the basis which is most commonly employed in our school systems. The validity of the nine grade system will be further discussed under the measurement of the achievement of pupils.

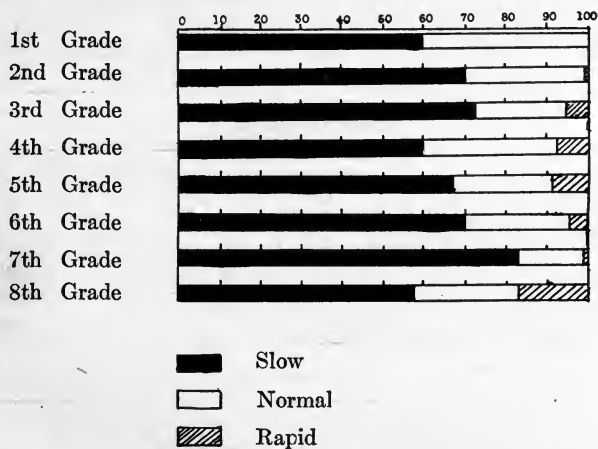
* Hackensack, N. J. School Survey, by George D. Strayer and N. L. Engelhardt, June 1921.

CHART No. 6.



Showing the percentage of pupils who are making normal progress, slow progress and rapid progress in grades Reception to Eighth inclusive in the schools of Lawrence Township, New Jersey for the year 1921-22.

CHART No. 7.



Showing the percentage of pupils in the Elementary Schools of Lawrence Township, Mercer County, New Jersey who have made rapid, normal and slow progress in the grades I to VIII inclusive, computed as of September 1st, 1921 for the school year 1921-22.

In this computation the Reception Grade is combined with the 1st Grade and the elementary course is considered as extending over eight years.

*Promotions and
Non-Promotions*

Table XXI gives the promotions, double promotions, and non-promotions, withdrawals and transfers in Lawrence Township for all grades in the elementary school for the year 1910-1911 and the years 1916-1917 to 1920-1921.

TABLE XXI

PROMOTIONS, DOUBLE PROMOTIONS, NON-PROMOTIONS, WITHDRAWALS AND TRANSFERS IN LAWRENCE TOWNSHIP, MERCER COUNTY, NEW JERSEY, BASED ON ENROLMENT IN EACH GRADE AT END OF YEAR—1911, 1917, 1918, 1919, 1920 AND 1921.

Including the percentages of totals for each year.

Promotions

Grades	Re-ception	I	II	III	IV	V	VI	VII	VIII	Unre-corded With-draw-als	Total number	Per-cent-age of total Cases
1910-11	38	51	37	34	19	37	19	18	14	0	267	66
1916-17	76	42	82	39	57	35	36	29	9	0	405	68
1917-18	125	54	77	81	44	55	33	28	21	0	518	76
1918-19	70	50	65	85	76	35	36	26	27	0	470	66
1919-20	93	37	109	70	82	73	42	32	22	0	560	75
1920-21	73	55	44	89	82	63	61	38	24	0	527	67

Double-Promotions

1910-11	2	0	0	0	0	0	0	0	0	0	2	.5
1916-17	17	0	0	0	0	0	0	0	0	0	17	2.9
1917-18	0	0	0	0	0	0	0	0	0	0	0	0
1918-19	60	3	0	0	0	0	0	0	0	0	63	9
1919-20	21	0	0	0	4	10	0	0	0	0	35	4.7
1920-21	19	0	0	0	0	0	0	0	0	0	19	3

Non-Promotions

1910-11	19	2	2	13	11	13	7	4	3	0	74	18.8
1916-17	18	1	3	11	15	22	8	10	20	0	108	18
1917-18	13	7	5	10	5	13	5	2	4	0	64	9
1918-19	28	6	0	2	11	12	8	4	0	0	71	10
1919-20	18	10	6	4	2	6	3	2	0	0	51	7
1920-21	13	11	11	14	10	16	17	3	1	0	96	12

TABLE XXI—Continued

Withdrawals

1910-11	9	7	4	3	3	5	0	1	0	26	58	14
1916-17	11	5	3	2	12	2	5	3	0	8	51	9
1917-18	21	0	8	13	9	13	4	4	0	15	87	13
1918-19	6	10	5	9	6	6	3	11	0	0	56	8
1919-20	18	4	6	7	8	6	6	6	0	0	61	8.1
1920-21	17	8	3	14	9	14	4	12	5	0	81	10.4

Transfers

1910-11	0	0	0	0	2	1	0	0	0	3	0	.7
1916-17	1	8	0	0	2	0	0	0	0	0	11	2.1
1917-18	2	1	2	0	7	0	1	0	0	0	13	2
1918-19	16	5	1	3	12	1	10	1	0	0	49	7
1919-20	10	7	5	4	4	2	8	0	0	0	40	5.2
1920-21	12	18	4	9	1	2	5	0	0	0	51	6.6

Totals

1910-11	68	60	33	50	35	55	27	23	17	26	404	100
1916-17	123	56	88	52	86	59	49	42	29	8	592	100
1917-18	161	62	92	104	65	81	43	34	25	15	682	100
1918-19	180	74	71	99	105	54	57	42	27	0	709	100
1919-20	160	58	126	85	100	97	59	40	22	0	747	100
1920-21	129	92	62	126	102	95	87	53	30	0	776	100

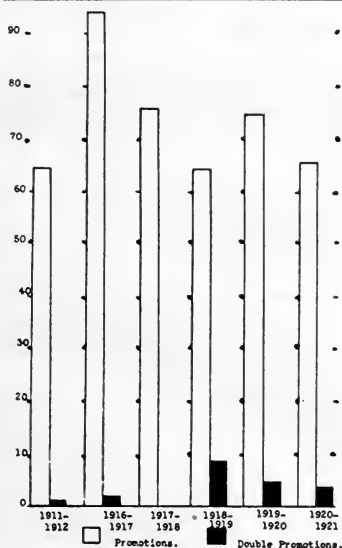


CHART No. 8.

Showing the percentage of promotions and double promotions in the Elementary Schools of Lawrence Township, Mercer County, New Jersey for the years 1911-1912, 1916-1917, 1917-1918, 1918-1919, 1919-1920 and 1920-1921.

Failures by Subjects As far as can be ascertained, the subjects which retard children to the greatest degree in their progress through the Lawrence Township schools are arithmetic, history, geography and spelling. The largest percentage of failures occurs in arithmetic for each of the years shown in Table XXII. It is evidence of lack of adjustment within the courses of study when approximately 20% or 25% of the children fail in any one subject.

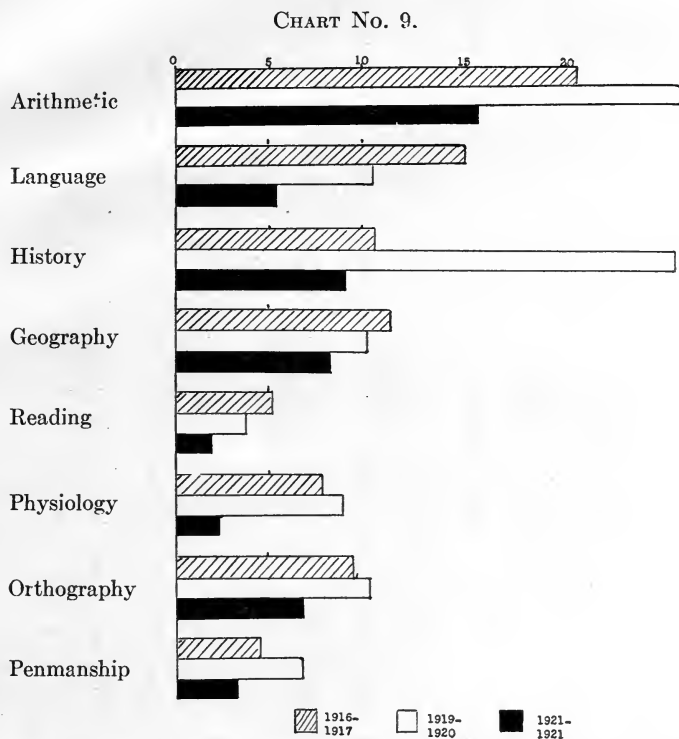
TABLE XXII

FAILURES BY SUBJECTS IN LAWRENCE TOWNSHIP, MERCER COUNTY, NEW JERSEY
Elementary Schools for Grades III-IV-V-VI-VII-VIII*
For Years 1916-17, 1919-1920 and 1920-1921

Subject	1916-17			1919-20			1920-21		
	No. of Fail-ures	No. En-rolled	Per Cent of Fail-ures	No. of Fail-ures	No. En-rolled	Per Cent of Fail-ures	No. of Fail-ures	No. En-rolled	Per Cent of Fail-ures
Arithmetic	52	254	20.5	85	331	25.7	62	397	15.7
Language	38	254	14.9	35	331	10.6	21	397	5.3
History	15	141	10.6	45	176	25.6	26	283	9.2
Civics	..	..	....	..	..	....	0	22	0
Geography	30	254	11.81	34	331	10.3	34	397	8.6
Bus. Forms	..	..	....	..	..	....	0	22	0
Reading	13	254	5.1	13	331	3.9	7	397	1.8
Orthography	25	254	9.8	34	331	10.3	30	397	7.6
Penmanship	14	254	5.51	24	331	7.2	15	397	3.8
Phys. Training	6	40	15.0	0	423	0	2	422	.5
Manual Arts	1	27	3.7	0	103	0	2	106	1.8
Physiology	21	254	8.27	31	331	9.4	8	397	2.1
Drawing	..	..	....	0	11	0	0	11	0

*No Classification of Pupils as to Subjects, in Reception Grade and Grades I and II.

The relative difficulties of subjects in the elementary schools will be seen from Chart No. 9 in which the percentage of failures by subjects for three years are given in those subjects in which the greatest percentages of failures occur.



Showing the percentage of failures by subjects in the Elementary Schools of Lawrence Township, Mercer County, New Jersey, for the years 1916-1917, 1919-1920 and 1920-1921.

High School Enrolment The state provides that all pupils who complete the 8th grade may avail themselves of a free high school education. Lawrence Township, in accordance with this law, provides high school facilities by sending its pupils either to Princeton or Trenton, and pays both their tuition and transportation.

A comparison between the total enrolment and high school enrolment of Lawrence Township shows that while there has been a steady increase in the total school enrolment covering a period of

TABLE XXIII
 A COMPARISON BETWEEN THE HIGH SCHOOL ENROLMENT AND THE TOTAL ENROLMENT FOR THE GIVEN DISTRICTS IN MERCER COUNTY, NEW JERSEY

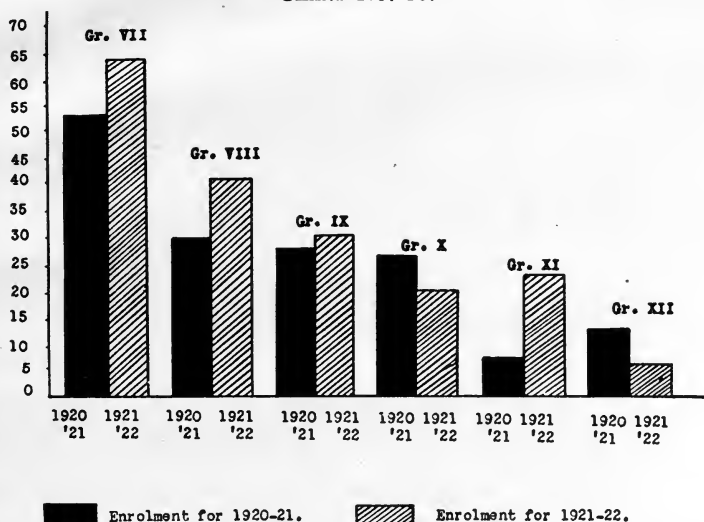
	Total Enrolment				High School Enrolment				Percentage						
	1916 to 1917	1917 to 1918	1918 to 1919	1919 to 1920	1920 to 1921	1916 to 1917	1917 to 1918	1918 to 1919	1919 to 1920	1920 to 1921	1916 to 1917	1917 to 1918	1918 to 1919	1919 to 1920	1920 to 1921
Ewing	518	641	638	659	699	46	45	38	52	68	8.9	7.0	6.0	7.9	9.7
Lawrence Township	703	810	840	882	937	46	48	38	53	72	6.5	5.9	4.5	6.0	7.7
Princeton Township	281	272	285	276	300	28	20	28	30	33	10.0	7.3	9.8	10.9	11.0

The above data were compiled from the reports of the County Superintendent of Mercer County and from other data filed in his office.

The above named districts send all of their high school students to the Trenton or Princeton high schools.

years, there has been a slump in the high school enrolment, reaching its lowest point during the war period, 1918-1919. Since that time, however, there has been a rapid growth in the high school enrolment as the preceding table shows. In this table is also given the percentage which high school enrolment has been of total enrolment for three Mercer County townships for the period 1916-1921. Lawrence

CHART No. 10.



Comparison of Pupil Enrolment for School Years 1920-1921 and 1921-1922 in Grades 7 to 12.

Township sends a smaller percentage of its total enrolment to high school than either Ewing or Princeton. It should be borne in mind that these are the three townships in Mercer County which do not support their high schools and which are a comparable group.

The high school percentages for all three groups are far below the median of the United States, namely, 13.6%.

Enrolment—
Grades 7 to 12

In Table XXIV are given the numbers of pupils enrolled in Lawrence Township in grades 7 to 12 for the school years 1920-1921 and 1921-1922. In the 10th and 12th grades, there is a sharp decrease in enrolment, but a splendid increase in grade 11. The inequalities between grades and the rapid falling off of children after the 7th grade are clearly marked in Chart No. 10.

TABLE XXIV

COMPARISON OF PUPIL ENROLMENT OF LAWRENCE TOWNSHIP, MERCER COUNTY IN GRADES 7 TO 12 INCLUSIVE FOR SCHOOL YEARS 1920-21 AND 1921-22

Years	7th Grade			8th Grade			9th Grade			10th Grade			11th Grade			12th Grade			Total			Grade Percentages of Total Enrolment in Grades 7-12					
	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	7	8	9	10	11	12
1920-1921	28	25	53	13	17	30	14	14	28	8	19	27	1	5	6	4	7	11	68	87	155	34	19	18	17	4	8
1921-1922	34	30	64	17	25	42	13	17	30	8	12	20	5	8	23	2	3	5	79	105	184	35	23	16	11	12	3
Increase or Decrease	6	5	11	4	8	12	-1	3	2	0	-7	-7	4	13	17	-2	-4	-6	11	18	29	1	4	-2	-6	8	-5
Percentage of Increase or Decrease	21	20	21	31	47	40	-7	21	7	0	-37	-26	400	260	283	-50	-59	-55	16	21	18	7	3	21	-11	35	200

PART IV

TEACHERS IN LAWRENCE TOWNSHIP

Teaching Staff There are twenty-two members of the teaching staff in Lawrence Township including the supervising principal and the teacher of the New Jersey Home School which, within a month, is to move to its new home and be outside of the jurisdiction of Lawrence Township making the regular staff a staff of twenty-one.*

Experience Table XXV gives the distribution of the teachers for Lawrence Township on the basis of salary received and years of experience. From this it is seen that the median salary for Lawrence Township is \$1,500 (computed median \$1,514), and the median years' experience is slightly over ten years. More than three-fourths of Lawrence Township teachers have more than five years' teaching experience. The length of teaching experience in Lawrence Township is shown in Chart No. 11 which gives the number of teachers who began to teach in the township in each of the years from 1902 to the present time.

In Table XXVI the total experience of elementary school teachers in Mercer County is shown for purposes of comparison. The median experience in Lawrence Township is 8.5% and is higher than that of all of the other townships.

Chart No. 12 shows the relation of the experience in Lawrence Township to the total experience of each teacher. From this it is quite evident that the teachers in Lawrence Township have had the major part of their experience within the township. Thirteen of the twenty-one teachers have had their entire experience in this township.

Training Table XXVII gives the distribution of salaries and the years of training beyond the 8th grade for Lawrence Twp. elementary school teachers. Seventeen of the twenty-one teachers are graduates of a two year standard normal school. One teacher has more than this much preparation, while three have less. This table also shows that there has not been a definite policy in Lawrence Township to adjust the salary to the amount of training.

* Most of the material concerning the teaching staff was secured from the back files of school registers and reports to the county superintendent.

Survey of Public School System

TABLE XXV

DISTRIBUTION OF SALARIES AND EXPERIENCE FOR ELEMENTARY SCHOOL
TEACHERS, LAWRENCE TOWNSHIP, MERCER COUNTY, NEW JERSEY

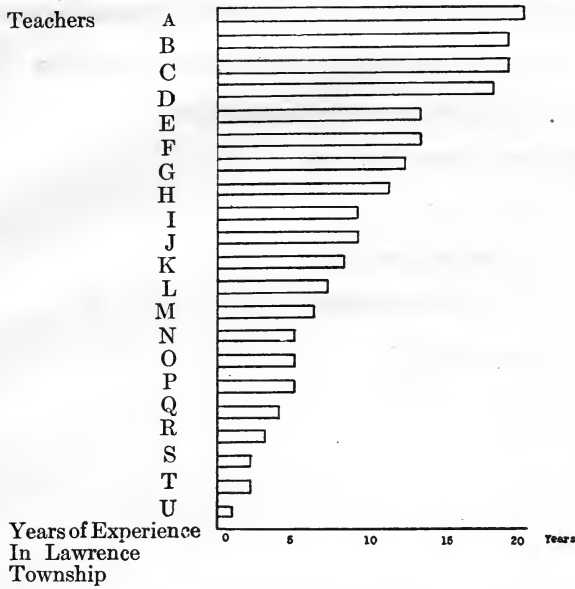
Salary 1921-1922

<i>Years of Experience</i>	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	<i>Total</i>	<i>Per Cent</i>
38	1										1	4.8
35										1	1	4.8
27										1	1	4.8
20											0	.0
19								1			1	4.8
18								2			2	9.6
17								1			1	4.8
16											0	.0
15											0	.0
14											0	.0
13								1			1	4.8
12											0	.0
11								1			1	4.8
10								1		1	2	9.6
9								1			1	4.8
8								1			1	4.8
7						1	1				2	9.6
6					1						1	4.8
5					1				1		2	9.6
4				1							1	4.8
3			1								1	4.8
2		1									1	4.8
1											0	.0
0											0	.0
<i>Total</i>	1	1	1	1	2	1	1	9	1	3	21	
<i>Per Cent</i>	4.8	4.8	4.8	4.8	9.6	4.8	4.8	45.2	4.8	14.4		100

Median Salary—\$1514.

Median Years Experience—10.2.

CHART No. 11



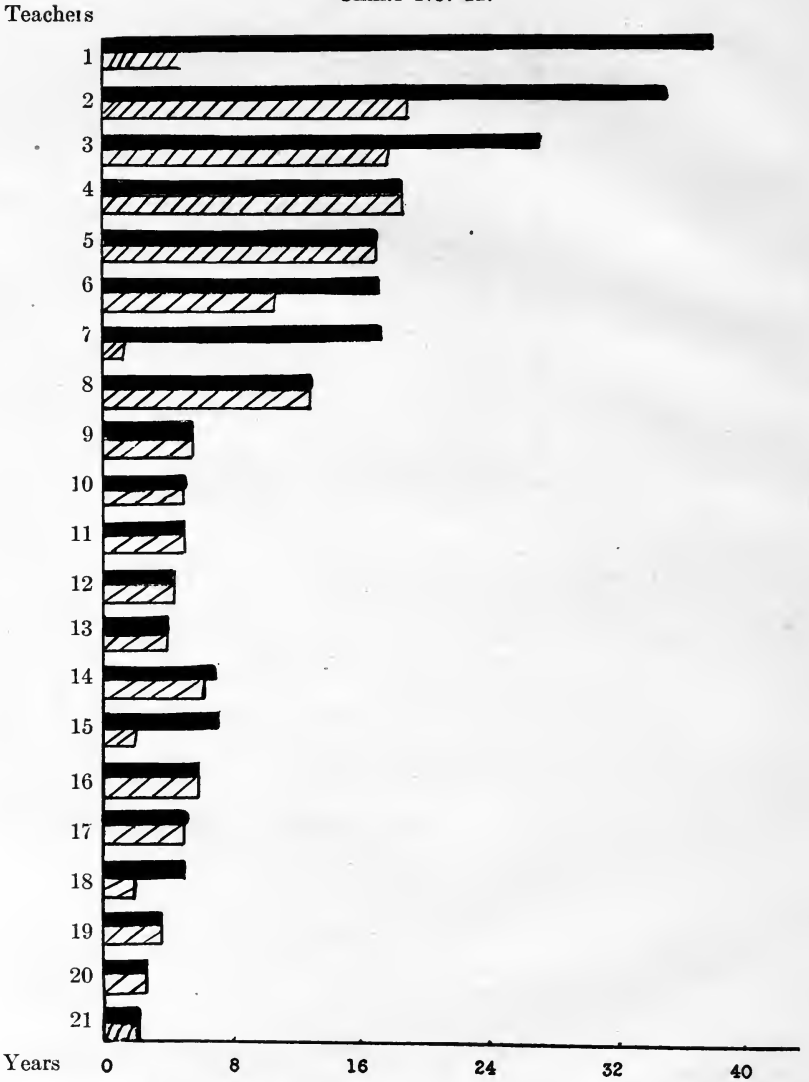
Showing Variability of Length of Service of Elementary School Teachers in Lawrence Township 1921-1922.

TABLE XXVI

COMPARISON OF TOTAL EXPERIENCE OF ELEMENTARY SCHOOL TEACHERS, MERCER COUNTY, NEW JERSEY 1920-1921

Township	Total Experience			No. Teachers
	Minimum	Maximum	Median	
Lawrence	1 year	34 years	8.5 years	21
East Windsor	1	31	6.7	15
Hamilton	1	27.5	5.8	81
Hopewell	1	36	4.6	31
Princeton	2	32	4.5	6
West Windsor	1	8	3.5	8
Ewing	1	5	3.5	16
Washington	2	18	2.5	5

CHART No. 12.



Comparison of Total Years of Experience with Experience in Lawrence Township 1921-1922.

Total Experience—Black Areas.

Experience in Lawrence Township—Cross Hatching.

TABLE XXVII
 DISTRIBUTION OF SALARIES AND YEARS OF TRAINING BEYOND GRADE 8 OF ELEMENTARY SCHOOL TEACHERS
 1921-1922

Years of Training	Salaries											Total	Per Cent
	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600			
8-8.99								1				1	4.8
7-7.99													
6-6.99	1	1	1	1	2	1	1	6	1	2		17	80.8
5-5.99													
4-4.99								1				1	4.8
3-3.99													
2-2.99												1	4.8
1-1.99												1	4.8
0													
Total	1	1	1	1	2	1	1	9	1	3		21	
Per Cent	4.8	4.8	4.8	4.8	9.5	4.8	4.8	42.8	4.8	14.2			

Median Salary, \$1514.

Computed Median Years Training Beyond Grade 8, 6.4

Correlation of Salary and Years of Training Above Grade 8, 0.04

The correlation of these two elements,—.04, shows that it is a matter of individual adjustment.

A majority of the teachers holding normal school diplomas received them from the Trenton State Normal School. This fact, combined with the predominance of experience within Lawrence Township would show that the schools are staffed very largely by local people. The teachers of Lawrence Township are better trained than the majority of teachers in the rural districts of New Jersey and much better trained than the teachers of similar districts in many other states. Lawrence Township ranks fourth among the districts in Mercer County in the percentage of elementary school teachers who are normal school graduates. The following resolution passed May 30th, 1921 shows that there is to be financial recognition for additional preparation secured during service. "Resolved that beginning with the year 1921-22, no teacher shall receive an increase in pay for two consecutive years without having taken courses approved by the supervising principal at one of the state summer schools within two years preceding the proposed increase."

The relative preparation of the elementary school teachers in the other districts of Mercer County is shown in Table XXVIII. From this, it is seen that Lawrence Township's teachers compare favorably with those of other districts in the county.

TABLE XXVIII
COMPARISON OF PREPARATION OF ELEMENTARY SCHOOL TEACHERS IN
MERCER COUNTY TOWNSHIPS 1921-22

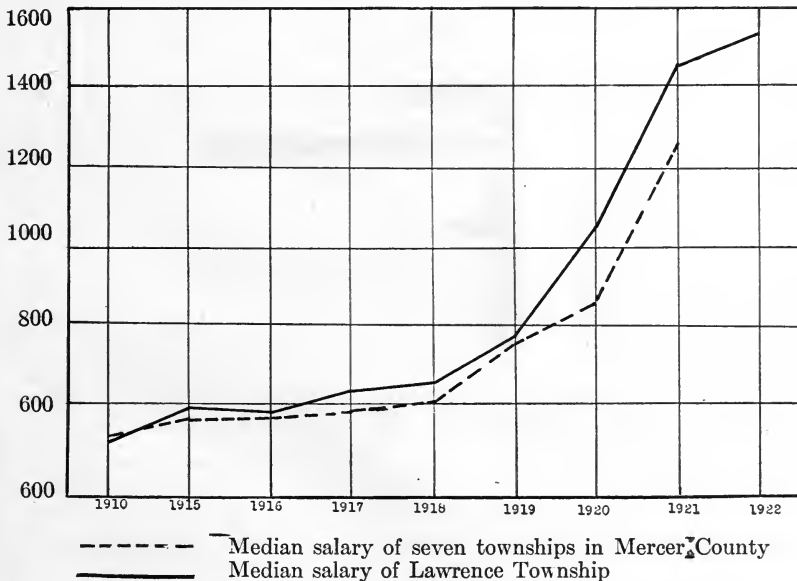
Township	Preparation				
	Normal Graduate	No Record of Preparation	Total Teachers	Per Cent Normal Graduates	Per Cent No Preparation
Ewing	15	1	16	94	6
West Windsor	7	1	8	88	12
Hamilton	63	18	81	78	22
Lawrence	16	5	21	76	24
Hopewell	23	8	31	74	26
East Windsor	11	4	15	73	27
Princeton	4	2	6	67	33
Washington	2	3	5	40	60
Totals	141	42	188	78	22

Salaries

The teachers of Lawrence Township are paid according to a regular salary schedule which went into effect in 1920 and which provides for a minimum salary of \$1,100. and a maximum of \$1,800. per year. A comparison of the salaries paid to the teachers of Lawrence Township compared with the median salary of seven townships in Mercer County, given in Chart No. 13, shows that Lawrence Township has consistently, since 1915, paid salaries higher than the average for the county. The actual distribution of salaries paid the teachers of Lawrence Township is shown in Table XXVII and graphically presented in Chart No. 14. The fact that so many of the teachers receive \$1,500. is due to the length of experience of these teachers in Lawrence Township which brought a number of them to the maximum salary until the new schedule was adopted in 1920. A comparison of Lawrence Township with the districts of East Windsor, Princeton, Hopewell, Hamilton, Washington, Ewing and West Windsor in Mercer County shows that Lawrence Township pays a higher median salary than any of these other districts by \$100., even though three of the other townships are paying as high or higher maximum salaries. These comparisons are given in Table XXIX.

CHART No. 13.

Comparison of Teachers' Salaries in Elementary Schools in Lawrence Township with those of other Townships in Mercer County.



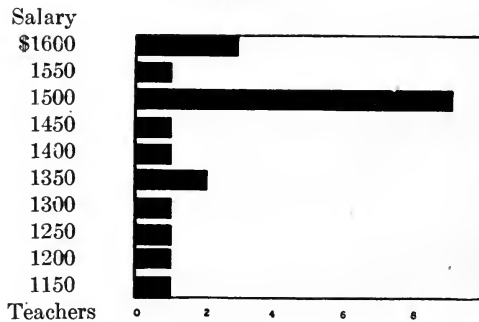
It is not possible to make any adequate statement concerning the adequacy of the salaries in terms of cost of living or other expenses, because not all of the teachers returned the data on these items. In comparison with other places, the salaries paid are adequate to secure a maximum of efficient service and adequately trained progressive teachers.

TABLE XXIX

COMPARATIVE SALARY SCHEDULES IN MERCER COUNTY TOWNSHIPS 1920-21

Township	Elementary Teachers		
	Minimum	Maximum	Median
Lawrence	1100	1500	1425
East Windsor	1100	1750	1325
Princeton	1100	1400	1275
Hopewell	1000	1600	1255
Hamilton	1100	1600	1230
Washington	1100	1500	1187
Ewing	1100	1375	1178
West Windsor	1100	1300	1130

CHART No. 14



Distribution of Salaries Paid Elementary School Teachers of Lawrence Township 1921-22

PART V

THE MEASUREMENT OF PUPIL PERFORMANCE

Tests In order to evaluate more fully the efficiency of the existing school system in Lawrence Township, a number of standardized tests were given to the pupils in the various grades. In this way, it is possible to compare the achievement of the pupils in one school with those in another school in the township and also to compare the work done by the children in Lawrence Township with similar achievements of pupils in almost every section of the United States. It was not possible to give tests in every subject, but the selection included a wide enough range to furnish a foundation for the study of this phase of the Lawrence Township schools.

The following tests were used:—

<i>Arithmetic</i>	The Woody Series A Tests* Addition... In Grades 3 and 4 Subtraction. “ “ 3 to 8 inclusive Division.... “ “ 5 to 8 inclusive
<i>Writing</i>	Scored by the Thorndike Handwriting Scale * Grades 3 to 8 inclusive
<i>Spelling</i>	Words selected from the Buckingham Extension to the Ayres Spelling Scale* Grades 3 to 8 inclusive
<i>English Composition</i>	Scored by the Nassau County Supplement to the Hillegas Scale* Grades 4 to 8 inclusive
<i>Reading</i>	Thorndike-McCall (Scale A)* Grades 3 to 8 inclusive Haggerty Reading Sigma 1** Grades 2 and 3
<i>National Intelligence Test</i> **	—Grades 3 to 8 inclusive, and
<i>Pressey Primer Scale</i> ***	..—Reception Grade, 1st and 2nd Grades

Each one of these tests was given according to the standardized directions for that particular test and the results are summarized

* Published by the Bureau of Publications, Teachers College, Columbia University, N. Y. C.

** Published by the World Book Co., Yonkers, N. Y.

*** Published by the Department of Psychology, University of Indiana, Bloomington, Ind.

under each subject. Detailed tables giving the actual distributions for each subject in the township and in the separate schools of the township were submitted when the report was made. These actual distributions should be particularly helpful for diagnosing the situation in any grade, in any school, and for building a constructive program of supervision with more accurate grading and classification.

ARITHMETIC

It will be seen from Table XXX that each grade from the 3rd to the 8th was given two tests in arithmetic. In every case, with the exception of the 4th grade in addition and the 5th grade in subtraction,

TABLE XXX

MEDIAN SCORES ON WOODY ARITHMETIC TEST-SERIES A COMPARED WITH WOODY'S STANDARD MEDIANS.

Lawrence Township, Mercer County, New Jersey

<i>Schools</i>	<i>Grades</i>					
	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>
ADDITION:						
Lawrence Township	13.2	18.5				
Woody Standard	14.5	18.3				
Difference	-1.3	+0.2				
SUBTRACTION:						
Lawrence Township	11.1	15.5	22.1	23.5	27.4	31.1
Woody Standard	11.2	15.7	20.4	25.0	28.5	31.7
Difference	-0.1	-0.2	+1.7	-1.5	-0.9	-0.6
DIVISION:						
Lawrence Township			13.4	21.0	26.3	28.7
Woody Standard			16.5	23.8	27.4	30.1
Difference			-3.1	-2.8	-1.1	-1.4

tion, the median scores for Lawrence Township are below the median scores adopted as the standard by the author of these tests. It is noticeable that the differences between Lawrence Township's median and the standard in the 3rd and 4th in both addition and subtraction are very small. This is possibly accounted for by the additional year spent by the majority of the children, due to the reception grade, in reaching the 3rd and 4th grade. This should give the children in these early grades a distinct advantage over the children in other commu-

ities. The median performances of the 5th grade in subtraction and division and of the 6th grade in division show the greatest differences between the medians for Lawrence Township and the established standards for these tests, the 5th grade falling behind the standard by over three problems.

The comparisons between the results secured in Lawrence Township and other communities where the Series A tests had been used are shown in Table XXXI. It will be seen from this table that other schools are not only able to attain the Woody standard but in many cases exceed that accomplishment. As in Table XXX, the upper grades in Lawrence Township performed less satisfactorily than the other groups, with the exception of the distinctly rural schools in the Wisconsin study. The Lawrence Township schools are even below the Wisconsin rural schools in four cases.

TABLE XXXI

MEDIAN SCORES ON WOODY ARITHMETIC TEST-SERIES A COMPARED BY GRADE
WITH MEDIANS OF OTHER SCHOOLS

Lawrence Township, Mercer County, New Jersey

Grades

<i>Schools</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>
ADDITION:						
Lawrence Township	13.2	18.5				
Woody Standard	14.5	18.3				
Wisconsin Rural*	14.5	17.7				
Wisconsin Cities*	15.5	20.2				
SUBTRACTION:						
Lawrence Township	11.1	15.5	22.1	23.5	27.4	31.1
Woody Standard	11.2	15.7	20.4	25.0	28.5	31.7
Wisconsin Rural*	12.0	15.4	18.8	21.3	23.4	26.8
Wisconsin Cities*	13.3	18.1	20.8	25.6	28.4	30.3
DIVISION:						
Lawrence Township			13.4	21.0	26.3	28.7
Woody Standard			16.5	23.8	27.4	30.1
Wisconsin Rural*			13.9	19.5	21.8	24.9
Wisconsin Cities*			19.6	25.1	28.4	30.0

*Educational Progress in Wisconsin, by Cary, Flemming and others, pg. 76.
Published by State Department, Madison, Wisconsin.

*Variability in
Arithmetic in
Lawrence Township*

The outstanding feature of a detailed distribution of the scores in the arithmetic tests in Lawrence Township is the very great range of performance for any one test in any grade. For example, in one 4th grade, there are two children who could not solve any of the problems in subtraction. The remainder of the class are distributed in their ability to solve problems from this point to two children who solved twenty-one and one child who solved twenty-three of the problems. There were 33 children, or 44% of the 6th grade who could not solve as many problems in subtraction as the one child in the 4th grade who solved twenty-three. This very great overlapping occurs in all of the grades and the spread within each of the grades shows a very distinct need for a more accurate grading of pupils.

*Comparison of
Classes*

The number of problems solved by 25% of each class and by 75% of each class shows the range of performance of the middle 50% of the class. With this measure, comparisons of like grades in the different schools of Lawrence Township were made. In subtraction, one 3rd grade class has a class median of 5.5 problems, while another 3rd grade class has a median of 12 problems. The range of achievement between the 25 percentile and 75 percentile spreads in the one case from 2.3 to 11.1 and in the other case is confined between 10.3 and 13.5. This means that in the first of these two 3rd grades, 25% of the class could not solve more than 2.3 problems and that only 75% of the class could solve more than 11.1, while the standard median for that grade, which should be met by 50% of the children, is 11.2. A comparison in the median number of subtraction problems solved by two 4th grade classes within the same building shows the median accomplishment for one class to be 6 problems and for the other 16 problems. Many such irregularities within like grades developed out of the arithmetic tests. This is further evidence of a lack of proper supervision and a lack of attention to the whole problem of adequate classification.

WRITING

*Quality of Hand-
writing*

The handwriting test consisted of copying two familiar lines for a period of three minutes. The children were given the following directions: "We want to know how well you can write. When I tell you to begin, you are to copy the two sentences over and over again, just as

many times as you can, before I tell you to stop. Remember, however, to write each time just as well as you can." These samples of handwriting were then scored on the Thorndike Handwriting Scale for quality by three competent judges and the median score of these three judgments taken as the quality score for each paper.

Table XXXII gives the median scores by schools and grades for Lawrence Township. It is evident that in every grade, Lawrence Township is distinctly below the standard achievement for that grade. There are only two instances where a grade in any school exceeds the standard for that grade. These two grades are the 4th grade in Clarksville, with only 5 pupils, and the 5th grade in Rosedale, with only 7.

A more detailed distribution of these scores makes evident the lack of grading in these classes, since several of them spread over six quality steps in the scale and one 6th grade extends over nine steps from one child whose writing was adjudged "quality six" to children whose writing was scored at "quality fourteen."

TABLE XXXII

COMPARISON OF THE SCHOOLS IN LAWRENCE TOWNSHIP AS TO QUALITY OF WRITING AS MEASURED BY THE THORNDIKE HANDWRITING SCALE

Grades

<i>Schools</i>	<i>III</i>		<i>IV</i>		<i>V</i>		<i>VI</i>		<i>VII</i>		<i>VIII</i>	
	<i>No.</i>	<i>Score</i>	<i>No.</i>	<i>Score</i>	<i>No.</i>	<i>Score</i>	<i>No.</i>	<i>Score</i>	<i>No.</i>	<i>Score</i>	<i>No.</i>	<i>Score</i>
Lawrence Township	48	8.3	88	8.8	93	9.1	76	9.8	54	10.2	40	10.5
Standard				10.1		10.7		11.3		11.9		12.7
Slackwood	18	7.	40	8.4	42	8.7	37	9.5	40	10.6	22	10.9
Lawrenceville	10	7.9	17	8.3	21	9.	24	9.3	14	10.1	18	10.
Eldridge Park	12	9.2	26	8.2	23	8.7	13	9.3				
Rosedale	6	9.5			7	11.1	2	11.				
Clarksville	2	9.5	5	10.5								

Table XXXIII gives a comparison of the quality of handwriting in Lawrence Township with five other places, four of them in New Jersey and the fifth, Amsterdam, N. Y. Here again, Lawrence

Township is shown to be distinctly below the median accomplishment of these other places in all grades, with the exception of a slight advantage in the 8th grade over the achievement of the pupils in Amsterdam.

TABLE XXXIII

COMPARISON OF LAWRENCE TOWNSHIP SCHOOLS WITH OTHER SCHOOL SYSTEMS
AS TO QUALITY OF WRITING

Grades

<i>Schools *</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>
Lawrence Township	8.3	8.8	9.1	9.8	10.1	10.5
Standard Score		10.1	10.7	11.3	11.9	12.7
Paterson, N. J.		9.12	10.7	11.1	10.4	10.9
Chatham, N. J.		9.3	10.3	11.7	12.8	13.3
Morris Township, N. J.		11.2	12.5	11.1	12.	12.8
Newark, N. J.		9.9	11.5	11.9	12.2	13.2
Amsterdam, N. Y.		9.4	9.9	10.7	10.7	10.4

Speed of Hand-writing

Table XXXIV shows the median speed of hand-writing for the schools and grades of Lawrence Township. Here it is again seen that the children of Lawrence Township are not only below the standard performance in the quality of writing, but also in rate. This is particularly true of the 6th, 7th and 8th grades. The children in the Rosedale School are consistently above the median performance for the township and also are above the standard for their grades.

Table XXXV shows the comparison of rate of writing of the pupils in Lawrence Township with the rates attained in other school systems. This shows that Lawrence Township does better in the rate of writing than it does in quality, even though in most cases it is still below the accomplishment in other places. The most significant comparison in this table is with the medians for 56 other cities which are slightly higher than those for Lawrence Township, with the exception of the 5th grade.

*Comparative data taken from unpublished survey of Amsterdam, N. Y. made by Department of Educational Administration, Teachers College, Columbia University.

TABLE XXXIV

COMPARISON OF THE SCHOOLS IN LAWRENCE TOWNSHIP AS TO RATE OF WRITING

Grades

<i>Schools</i>	<i>III</i>		<i>IV</i>		<i>V</i>		<i>VI</i>		<i>VII</i>		<i>VIII</i>	
	<i>No. of Pupils</i>	<i>Score*</i>	<i>No. of Pupils</i>	<i>Score</i>	<i>No. of Pupils</i>	<i>Score</i>	<i>No. of Pupils</i>	<i>Score</i>	<i>No. of Pupils</i>	<i>Score</i>	<i>No. of Pupils</i>	<i>Score</i>
Lawrence Twp.	48	40.3	88	45.2	93	62.8	76	57	54	63.8	40	66
Standard Score				56		65.		72		80		90
Slackwood	18	41.	40	43.3	42	62.3	37	54.2	40	61.8	22	68.5
Lawrenceville	10	39.3	17	41.6	21	45.2	24	56	14	66.8	18	64.3
Eldridge Park	12	28.5	26	55.4	23	68.5	13	71.8				
Rosedale	6	60			7	90.8	2	110				
Clarksville	2	40	5	44.8								

*Score is expressed in the number of letters per minute.

TABLE XXXV

COMPARISON OF LAWRENCE TOWNSHIP SCHOOLS WITH OTHER SCHOOL SYSTEMS AS TO RATE OF WRITING

Grades

<i>Schools**</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>
Lawrence Township	40.3*	45.2	62.8	57.	63.8	66
Standard Score		56.	65.	72	80.	90
Paterson, N. J.		32.	38.5	44.5	52.	52.5
Amsterdam, N. Y.	26.44	32.9	46.8	51.4	61.5	78.5
St. Paul, Minn.		45.	53.	64.	70.	78.
Cleveland, O.			62.	69.	73.	78.
56 Cities		51.2	59.1	62.8	67.9	73.

*Score is expressed in terms of the number of letters per minute.

**Comparative data from unpublished survey of Amsterdam, N. Y. made by the Department of Educational Administration, Teachers College, Columbia University.

A detailed distribution of the rate of handwriting for the pupils of Lawrence Township shows again the very great overlapping between grades, the wide distribution of abilities within any one grade and the slower progress made by the pupils in the 7th and 8th grades. An example of the wide range within any one grade occurs in a sixth grade where one child writes less than 44 letters per minute and another one in the same grade writes between 101 and 105 in the same time.

A tabulation of the handwriting scores for quality and speed, when combined by schools and not by grades, gives a median score for all of the children in Slackwood of 9.6, Lawrenceville 9.5, Eldridge Park 9.1, Rosedale 10.5 and Clarksville 9.9. When the median is found for speed, the scores are as follows:

Slackwood.....	54.5	letters per minute
Lawrenceville.....	63.1	“ “ “
Eldridge Park.....	55.	“ “ “
Rosedale.....	78.5	“ “ “
Clarksville.....	43.5	“ “ “

In comparing Clarksville and Rosedale with the other schools, it must be borne in mind that Rosedale does not extend beyond the 6th grade and has 12 pupils in that grade, while Clarksville extends only through the 4th grade.

Recommendations for Writing More attention should be given to the handwriting of pupils in all writing exercises. Attention should be paid to correct letter formation, correct position and the securing of increased speed without sacrificing quality and legibility. The lowness of the scores in the upper grades shows either a lack of emphasis on handwriting or the development of an attitude of carelessness toward handwriting.

SPELLING

Selection of Words Twenty words were chosen from Buckingham's Extension to the Ayres Spelling Scale, one from each of the columns from "G" to "Z". The words* used and their difficulty for each grade are given below:

No.	Words	Column in Ayres Scale	Grade in Bauer and Jones Lists	Mid-year Percentage Standard				
				III	IV	V	VI	VII
1	come	G	2-2					
2	was	H	2-2	92				
3	foot	I	2-2	88				
4	happy	J	2-2	84				
5	could	K	2-2	79	92			
6	once	L	2-2	73	88			
7	pretty	M	2-2	66	84	92		
8	always	N	2-2	58	79	88		
9	uncle	O	3-2	50	73	84	92	
10	beautiful	P	4-3	42	66	79	88	
11	surprise	Q	5-4	34	58	73	84	92
12	vessel	R	5-5		50	66	79	88
13	century	S	7-7		42	58	73	84
14	invitation	T	7-7		34	50	66	79
15	necessary	U	6-6			42	58	73
16	experience	V	7-7			34	50	66
17	athletic	W	6-5				42	58
18	convenient	X	7-7				34	50
19	decision	Y	0-8					42
20	recommend	Z	0-8					34

* Taken from Virginia Public School Survey, Vol. 2, Page No. 93—Directed by A. J. Inglis.

Table XXXVI gives a comparison of the schools of Lawrence Township on the basis of percentage of the list spelled correctly and the average number of words spelled correctly by each grade of the several schools. There is less variability shown in spelling than in any of the other tests given, with the exception of the 3rd grade in Rosedale and the 4th grade in Clarksville, in both of which cases the percentage spelled correctly and the average number of words spelled correctly are higher than for the other classes of those grades.

TABLE XXXVI

COMPARISON OF SCHOOLS OF LAWRENCE TOWNSHIP IN SPELLING ON THE BASIS OF THE PERCENTAGE AND AVERAGE NUMBER OF WORDS SPELLED CORRECTLY IN THE ENTIRE LIST OF WORDS

Grades

Schools	III		IV		V		VI		VII		VIII	
	%	Av.	%	Av.	%	Av.	%	Av.	%	Av.	%	Av.
Lawrence Township	27	5.4	44	8.7	55	11.1	66	13.1	76	15.2	84	16.8
Slackwood	27	5.3	43	8.6	53	10.6	63	12.6	77	15.3	89	17.9
Lawrenceville	25	4.9	43	8.5	53	10.5	66	13.1	76	15.1	77	15.4
Eldridge Park	21	4.3	43	8.5	61	12.2	73	14.5				
Rosedale	38	7.5			59	11.9	75	15.				
Clarksville	25	5.	55	11.								

Comparison with Standards in Spelling Table XXXVII gives the spelling scores for each grade of the Lawrence Township schools compared with the standard scores given for the same words used in 84 other cities. Even though Table XXXVI shows smaller variation between classes, Table XXXVII shows that the classes are consistently below the standard achievements for the several grades. In this table, the lists were so used that each grade was scored upon ten words for which that grade should average 66.6%. The 3rd grade in Lawrence Township falls 22.2% below this standard and the 7th grade is more than 10% below the standard achievement.

TABLE XXXVII

SPELLING SCORES FOR THE SCHOOLS OF LAWRENCE TOWNSHIP, COMPARED WITH THE STANDARD SCORE ON THE BASIS OF THE TEN WORDS OF EQUAL DIFFICULTY FOR THE VARIOUS GRADES

(Scores expressed as percentages of the ten words spelled correctly)

Schools	Grades				
	III 2-11 Incl.*	IV 5-14 Incl.	V 7-16 Incl.	VI 9-18 Incl.	VII 11-20 Incl.
Lawrence Township	44.4	47.5	48.	51.2	56.
Standard Score	66.6	66.6	66.6	66.6	66.6
Slackwood	43.5	45.	45.	45.7	55.8
Lawrenceville	41.	48.2	45.2	47.9	55.7
Eldridge Park	35.	46.5	55.2	61.5	
Rosedale	61.7		51.4	75.	
Clarksville	26.7	66.			

Standard score based on results obtained from eighty-four cities.

*This reference is to the ten words spelled as numbered on page 63.

Comparison with Virginia Results in Spelling

Table XXXVIII gives a comparison by grades with the achievements in spelling of the various types of schools in Virginia where it will be seen that the only place where Lawrence Township exceeds the accomplishment in Virginia is in the 7th grade, when compared with the Virginia one-room rural schools.

TABLE XXXVIII

COMPARISON OF THE SPELLING SCORES OF THE LAWRENCE TOWNSHIP SCHOOLS WITH VARIOUS TYPES OF SCHOOLS IN VIRGINIA* ON THE BASIS OF THE STANDARD SCORE

Schools	Grades				
	III	IV	V	VI	VII
Standard score	66.6	66.6	66.6	66.6	66.6
Lawrence Township	44.4	47.5	48.	51.2	56.
Va. Rural one room schools	61.9	54.1	56.8	54.6	52.6
Va. Rural, four rooms or over	71.8	68.1	61.5	62.6	58.7
Va. City schools first half yr.	57.8	67.0	63.5	57.3	58.6
Va. City schools second half	69.6	63.8	68.3	69.5	63.1

*Virginia Public Schools, Vol. I., page No. 123, Directed by A. J. Inglis.

Recommendations for Spelling The children of Lawrence Township are so distinctly below standard in spelling that additional emphasis should be placed upon this work. Care should be used in securing accurate imagery, proper syllabication when the word is first presented and focalization of attention on parts of words likely to be misspelled. Better results will be obtained if words are more carefully selected from the vocabularies of the children, fewer new words presented and more constant drill and review used in this subject.

ENGLISH COMPOSITION

The Subject Selected All of the children in Lawrence Township, from the 4th to the 8th grade inclusive, were asked to write for twenty minutes upon the topic—"What I Should Like To Do Next Saturday." These compositions were then graded by three judges on the Nassau County Supplement to the Hillegas Composition Scale and the median of these three judgments used as the score for the composition. Distribution of these scores is shown in Table XXXIX where it will again be noticed that improvement is made from the 4th to the 5th and from the 5th to the 6th grades after which the rate of improvement is materially lessened for the 7th and 8th grade. Also, there is the same wide variability within grades and extensive over-lapping between grades. This is still further shown when it is realized that one pupil in a 4th grade writes a composition better than the median composition of either 8th grade and that there are many 4th and 5th grade pupils who do as well in composition as many of the 7th and 8th grade pupils.

Comparison with Scores in Other Places By comparing the median scores for each grade in Lawrence Township with the corresponding scores given for the various places listed in Table XXXIX, it is clear that Lawrence Township not only falls distinctly below the standards for this test, but also materially below a large majority of the other places for which comparable scores are available.

Recommendations for Composition Much more attention should be given in Lawrence Township to writing in English. Power should be gained by the pupils in ease of expression and continuity of thought. Enough attention must be given to the mechanical features of punctuation, capitalization, paragraphing

TABLE XXXIX

COMPOSITION SCORES FOR LAWRENCE TOWNSHIP BASED ON THE NASSAU COUNTY SUPPLEMENT TO THE HILLEGAS SCALE DISTRIBUTED BY GRADES, SCHOOLS, AND SCORES AND COMPARED WITH GRADE STANDARDS AND ACCOMPLISHMENTS IN OTHER SCHOOL SYSTEMS

Grade	School	No. taking test	Scores										Median		
			Range		1.49	2.37	3.32	4.40	5.49	6.61	7.61	8.50			
			0	.53											
4th	Clarksville	5													
4th	Lawrence	17			4	10	2	1							3.8
4th	Slackwood	32	1	15	10	5	1								2.80
4th	Slackwood	10	2	7	1	1									1.49
4th	Eldridge Park	26	1	9	8	6	2								.95
	<i>Total</i>	90	4	31	23	21	10	1							1.83
5th	Rosedale	7				1	4	1							3.99
5th	Lawrence	8			1	5	2			1					2.95
5th	Lawrence	13		3	7	3									1.93
5th	Slackwood	42		3	8	16	15	3							3.15
5th	Eldridge Park	23			1	8	12	2							3.56
	<i>Total</i>	93		3	17	33	33	6	1						3.15

TABLE XXXIX—Continued

Grade	School	No. taking test	Range								Meridian		
			.53	1.49	2.37	3.32	4.40	5.49	6.61	7.61		8.50	
			0	1.1	1.9	2.8	3.8	5.0	6.0	7.2	8.0	9.0	
6th	Rosedale	2						1	1				5.9
6th	Lawrence	24			4	15	5						3.91
6th	Slackwood	37			8	20	9						3.90
6th	Eldridge Park	12			2	10							3.76
	<i>Total</i>	75			14	45	15	1					3.87
7th	Lawrence	14				6	5	3					4.63
7th	Slackwood	13				8	5						4.21
7th	Slackwood	30			6	16	8						3.94
	<i>Total</i>	57			6	30	18	3					4.14
8th	Lawrence	18				6	12						4.68
8th	Slackwood	21			2	6	10	2	1				4.68
	<i>Total</i>	39			2	12	22	2	1				4.68
	<i>Grand Total</i>	340	4	34	40	75	121	60	5	1			3.48

TABLE XXXIX—Continued

	Grades				
	4th	5th	6th	7th	8th
Lawrence Township	1.78	3.15	3.87	4.14	4.68
Median Score—Amsterdam, N. Y.					
Spring Score	2.07	2.52	3.37	3.97	4.65
Median Score—Nassau County	2.75	3.42	3.82	4.18	4.56
Spring Score	2.75	3.42	3.82	4.18	4.56
Median Score—St. Paul, Minn.					
February	2.02	3.39	3.54	4.12	4.96
Median Score—South River, N. J.	2.31	2.55	3.78	4.75	5.62
Median Score—Middletown, N. J.	3.46	4.04	4.67	4.54	5.23
Median Score—LaPorte, Ind.	4.1	4.4	5.0	5.8	6.8
Median Score—Newark, N. J.	2.39	2.51	3.56	4.33	5.27
Ethical Culture School—New York, N. Y.					
Median Score—Chatham, N. J.	2.95	4.01	4.72	5.39	5.74
Median Score—Paterson, N. J.		2.85	4.10	5.02	5.29
Spring Score	2.22	3.38	3.54	4.12	4.96
Trabue's Tentative Standards	3.5	4.0	4.5	5.	5.5

and the like so that these elements will not absorb the attention of the pupil during the writing of a composition. Effort should be made to bring about a better classification within grades. The median achievement for all of the grades should be materially raised.

READING

Thorndike-McCall Reading Test, Scale A.

All of the children from the 3rd grade through the 8th inclusive were tested on Scale A of the Thorndike-McCall Reading Test. The average accomplishment for each grade of each school is given in Table XL. From this table, it can be determined that the children of Lawrence Township are consistently slightly below the standard and quite markedly below the achievements of children in corresponding grades in other cities and states. There is a very wide distribution of reading ability in practically all of the grades, but the average ability for each grade is near enough to the standard so that reading difficulties cannot be assigned as the cause of failure to approach standards in other subjects. The detailed scores obtained on this test show that a number of 4th grade children can read as well as some 8th grade children and better than a number of 7th grade children.

Haggerty Reading Test—Sigma 1.

Reading in the Lower Grades

In order to secure a test of the reading ability of the children of Lawrence Township in the 2nd and 3rd Grades, Haggerty Reading Test, Sigma 1 was used in all of these grades in the township. A distribution of the scores obtained by grades and schools is given in Table XLI.

Variation in Reading Ability

The feature of this table, which is immediately noticed, is the very great range in reading ability within each grade in the several schools. This is greatest in Slackwood but is much larger than it should be in all of the other schools. The 2nd grade in Slackwood, consisting of 22 pupils, ranges from a score of 1 to a score of 25 with not more than four pupils on any one step. The 3rd grade in Slackwood, with 18 pupils, ranges from a score of 1 to a score of 36, with not more than two pupils on any one step. Where the reading ability varies in this manner from almost no ability to read up to a reading ability comparable to the 4th or 5th grade, it is impossible for the teacher to expect anything

like uniform work from her class. The pupils at the lower ends of these distributions are a constant handicap to the other pupils in the class and an element constantly holding back the achievement of the grade.

Comparison with Standards and Achievement in Other Places The median achievement of the 2nd grade is 8.36 which is but slightly more than the standard for the 1st grade which is 6. and materially below the standard for the 2nd grade which is 20. In Wisconsin, the first grade children who had had the advantage of previous kindergarten training received a score of 11.7 and those without kindergarten training a score of 9.6, both of which 1st grade scores are higher than the 2nd grade achievements in Lawrence Township. The corresponding achievements in the two Wisconsin groups for the 2nd grade were 23.4 and 20. The median age of the 2nd grade in Lawrence Township is 8.2 years and on the Pressey Primer Scale this grade practically met the standard accomplishment for that grade. This would indicate that the mental ability of the 2nd grade was up to standard and that it should therefore be able to meet the standards in reading. According to the Haggerty norms, children who are eight years of age should be able to make a score of 19 on the Haggerty Reading. Since the Lawrence Township second grades average slightly more than eight years of age, the standard of 20 for that grade is not too high to expect from these children. The median score of the 3rd grade is 19.5. This would indicate that the reading ability of the 3rd grade in Lawrence Township is slightly less than the standard for the 2nd grade. In other words, the 3rd grade children in Lawrence Township are almost exactly one grade behind in their reading ability.

In the Slackwood 3rd grade, referred to above, where the range of reading ability extends from 1 to 36 and where only 6 of the 18 pupils, or one-third of the class exceed the standard for the 2nd grade, the situation is serious enough to demand immediate investigation and readjustment.

Conclusion The use of this test very clearly locates one of the serious difficulties in the educational situation in Lawrence Township, namely the inability of the children in the lower grades to read as well as children in similar grades in other districts. No other subject is as important in the lower grades or influences the accomplishment in other subjects as much as does reading. The discovery that

TABLE XI—Continued

6th	Lawrence	23	1	0	0	0	2	1	2	5	2	3	2	3	1	0	1	48.9
6th	Slackwood	37	1	0	0	1	0	3	2	5	4	4	8	2	4	1		48.7
6th	Eldridge Park	12																46.2
6th	Rosedale	2																58.0
	<i>Total</i>	<i>74</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>6</i>	<i>4</i>	<i>10</i>	<i>9</i>	<i>7</i>	<i>16</i>	<i>4</i>	<i>7</i>	<i>5</i>	<i>1</i>	<i>48.9</i>
7th	Lawrence	14																52.8
7th	Slackwood	13																58.2
7th	Slackwood	27	1	0	0	1	0	2	3	3	3	7	3	1	2	0	0	51.6
	<i>Total</i>	<i>54</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>5</i>	<i>4</i>	<i>6</i>	<i>4</i>	<i>9</i>	<i>4</i>	<i>9</i>	<i>4</i>	<i>5</i>	<i>2</i>	<i>53.7</i>
8th	Lawrence	18																59.8
8th	Slackwood	22																57.4
	<i>Total</i>	<i>40</i>																<i>56.8</i>

Grades

	3rd	4th	5th	6th	7th	8th
Mean	30.7	39.0	44.6	48.9	53.7	56.8
Mean Norm at End of First Semester	33.7	39.6	44.9	50.9	56.0	59.6
10 Miscellaneous Cities	32.8	40.9	46.3	51.7	58.0	59.8
33 Wisconsin Cities	38.2	40.9	47.2	52.6	55.3	58.0
18 Indiana Cities	40.0	49.9	58.9	67.0	68.8	71.5
Louisville, Kentucky		39.1	43.6	51.7	59.8	60.7
New York City	36.5	41.0	47.5	51.5	55.8	58.4
Paterson, New Jersey		35.5	40.9	49.0	51.7	53.5
San Francisco, California	37.3	45.4	53.5	52.6	58.9	62.5
St. Paul, Minnesota	39.1	41.8	46.3	53.5	58.0	62.5

children in Lawrence Township are *a year behind* in their reading achievement when, by virtue of the reception grade, they should be a *year ahead* and furthermore when the measurements of mental ability show that the children in these grades should accomplish as much as the children in other districts, it is very clearly seen that primary reading should be one of the first problems to be studied and solved in Lawrence Township.

Recommendations on Reading Both of the reading tests show that with a little more attention to reading, especially in the lower grades, the children in Lawrence Township could be made to reach and perhaps exceed the standard for these tests. Particular emphasis should be placed upon more rapid silent reading for content. Improvement in this phase of reading would be of material assistance in practically all other school subjects.

GENERAL INTELLIGENCE

Reason for This Test In making any comparisons between the pupil accomplishment in Lawrence Township with other school systems, or between the schools of Lawrence Township, it is quite necessary to know whether the pupils compared have approximately the same general ability before any constructive diagnosis can be made of the reasons for variations. In order that this might be done in Lawrence Township, two general intelligence measures were used, the National Intelligence Test in grades 3 to 8 and the Pressey Primer Scale in the reception grade and grades 1 and 2.

National Intelligence Test The National Intelligence Test was given to all of the children in Lawrence Township from the 3rd grade to the 8th inclusive. The scores earned on this test by children of each grade in each school are given in Table XLII. The contrast between this table and the other tables on the measurement of achievement is immediately evident. Here, for the first time, *there is a regular advancement from grade to grade*, the median achievement of each grade being distinctly higher than that of the preceding grade. This is conclusive evidence that the children in the upper grades are possessed of as much native ability as the children in the lower grades, consequently the failure of these grades to make regular progress in the subjects measured cannot be attributed to a lack of ability to do the work. They must therefore be

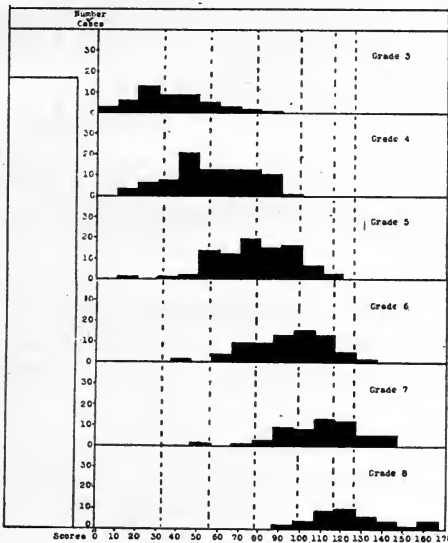
TABLE XLII—Continued

	Grades							
	3rd	4th	5th	6th	7th	8th		
Lawrence Township—Median	32.5	54.6	78.0	99.6	115.	125.5		
Average	35.9	56.7	72.8	97.3	112.4	128.8		
Baltimore		67	84	105	123	138		
Michigan Cities		59	82	99	113	130		
Vallejo, California		72	89	107	121	133		

explained on the basis of lack of emphasis in these subjects on the part of the supervisor and the teachers in these grades. The intelligence scores shown in Table XLII confirm the fact noted in connection with all other tables that the children in Lawrence Township are very poorly classified since the scores spread over a range of 80 to 110

CHART No. 15
Distribution of Scores, National Intelligence Test
Lawrence Township

Showing Extreme Range of Ability in Each Grade and Over-lapping of Grades.



points in each grade. The instructional difficulties presented to a teacher, because of the wide variation of ability within one class, are obvious when the scores on this test for a given grade are noticed. For example, a grade of 17 pupils contains one pupil whose score is zero, three whose scores are between 10 and 20, four whose scores are between 20 and 30, two between 30 and 40, three between 40 and 50, two between 50 and 60, one between 60 and 70 and one between 70 and 80. With this range of ability, group instruction in this class is almost out of the question.

Comparison with Other Districts When the median scores for Lawrence Township are compared with those for Baltimore and particularly with the more comparable scores for Michigan cities, the general conclusion is warranted that the children of Lawrence Township are as intelligent and capable as the children in other similar sections. This conclusion adds significance to the fact that the achievement of these pupils in the school subjects measured is in almost every instance below the standard and below the accomplishment of other districts. The reason for this must be found in organization, supervision, or instruction.

Pressey Primer Scale In order to verify the conclusions from the use of the National Intelligence Test in the lower grades, the Pressey Primer Scale was used in the reception and first two grades. This was done because this scale can be used with the younger children and directions given orally, whereas the National Intelligence Test necessitates the ability to read paragraphs and recognize words in a number of the tests. Table XLIII gives the scores made by the children in these three grades of the schools in Lawrence Township. Because of the fact that Lawrence Township has a reception grade through which a majority of the children go before reaching the 1st grade, it would be expected that the children in the 1st and 2nd grades would very easily exceed the median accomplishment for the regular 1st and 2nd grades. In the light of this, it is noteworthy that the 1st grade exceeds the standard for 1st grades by only 0.7 of a step, while this slight advantage is *lost by the close of the 2nd grade* where the median for the grade is 3.2 below the standard for that grade. The additional time caused by the reception grade does not seem justified in the scores attained.

Table XLIII again confirms the conclusion that the classification within grades is extremely loose and that the addition of the reception grade, even where only the first two grades are concerned, does not tend to remedy this situation. Where a class of 1st grade children vary as much as the 1st grade in Eldridge Park, namely from 0 to a score of 64, the value of the reception grade as additional means of adjustment is not substantiated. Such a wide range of ability is also found continuing into the 2nd grade in the Eldridge Park School. The range of variation is only slightly less in the Slackwood and Lawrenceville schools.

TABLE XLIII
 SCORES ON PRESSEY PRIMER SCALE, FOR RECEPTION, FIRST AND SECOND GRADES OF LAWRENCE TOWNSHIP,
 MERCER COUNTY, NEW JERSEY

Distributed by Scores, Grades and Schools and Compared with Grade and Age Standards

Grade	School	No. taking test	0-3	4-7	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	Median Chronological Age	Score for Lawrence Township	Standards By Grade
Recp'n	Slackwood	18		3	1	2			1	3	1	1	1	1	1									6.7	30.7	
Recp'n	Lawrenceville	10		2	2		1				2		2											6.3	34.	
Recp'n	Eldridge Park	26		6	4	2		3	1															6.2	6.7	
Recp'n	Rosedale	0																								
Recp'n	Clarksville	3							1	1	1															
	Totals	57	10	9	7	4	1	3	3	4	2	5	3	1	1								6.2	14.5		
1	Slackwood	15							2	1	2	1	1	1	6									6.9	54.	
1	Slackwood	10					1		1	1			4	1	1									7.5	50.	
1	Lawrenceville	13						1	1	2	2													6.9	49.	
1	Eldridge Park	29		2	4	2		2	1	2	1	2	2	1	3	1	2	1						8.0	33.	
1	Rosedale	4							1						1	1										
1	Clarksville																									
	Totals	71	3	2	4	2	1	4	4	3	4	2	6	3	9	5	6	2	4				7.4	46.	45.3	
2	Slackwood	22							2	1	2	2	3	4	2	2	1							7.8	60.	
2	Lawrenceville	23							2	3		4	3	5	2	2								8.5	59.3	
2	Eldridge Park	21					2	1	1	2	1	1	1	1	3	2	2	1						8.8	56.	
2	Rosedale	4											1	1	1											
2	Clarksville	4													1	1										
	Totals	74						2	3	1	3	2	6	2	4	9	7	12	7	6	3	5	2	8.2	58.86	62.

*Conclusions
on Measurement
of Achievement
and Intelligence*

From the tests and measurements made of the children in Lawrence Township, the following conclusions and recommendations are justified:

- 1—Progress in a majority of the school subjects is slower in the upper grades.
- 2—There is an unusually large and unnecessary amount of overlapping between grades, many 3rd and 4th grade children in a number of the subjects achieving the same scores as those in the 8th grade in these same subjects.
- 3—The unusual variation in the abilities within any one grade of any school gives evidence of a lack of attention to the classification of pupils and materially increases the difficulty of class instruction and mitigates against the effectiveness of the teaching.
- 4—In practically every subject measured, the children of Lawrence Township fall below established standards for the subjects measured and below the achievement of children of the same grades in other districts. When it is borne in mind that Lawrence Township has developed a nine grade system of schools and that the children of each grade have an advantage over children of similar grades in other school systems, this fact has additional serious significance.
- 5—The measurement of intelligence shows that the children of Lawrence Township are as capable as the children in any such typical situation so that any failures in accomplishment may not be attributed to natural inability.
- 6—The value of the reception grade as a means of better adjustment and more accurate classification of pupils is not justified by any of the tests given. On the other hand, it seems to represent a year largely wasted so far as additional progress through the grades is concerned.

Recommendations

- 1—A careful detailed and scientific study should be conducted by the supervising principal and teachers of Lawrence Township on the problem of pupil classification. Tests similar to those utilized in his study should be used for the purpose of better adjustment between grades and within grades. These tests should be used

to supplement the grades given as a result of the regular examinations by the teachers.

- 2—Semi-annual promotions should be definitely established.
- 3—A number of schools and grades within schools should be completely reorganized in order to eliminate the very great variability within any one grade. Where necessary, grades should be divided into sections on the basis of age and ability.

PART VI

THE SCHOOL BUILDINGS

In measuring the school plants of Lawrence Township, each building was scored on the Strayer-Engelhardt Score Card for Village and Rural School Buildings. This score card has been devised for use in the scoring of rural school buildings so that judgment may be rendered on all important items of building construction and physical requirements. Whenever, through the use of this score card, a school plant scores 1,000 points, it is considered a perfect plant. These 1,000 points have been distributed among the five main elements of a school plant and each of these five elements has been assigned a definite weighting, as follows —

Site.....	160 points
Building Structure.....	200 “
Service Systems.....	250 “
Classrooms.....	225 “
Special Rooms.....	165 “

It will be observed from Chart No. 16, which reproduces the Strayer-Engelhardt Score Card, that each of these items is subdivided so as to allow a certain weight to be attached to each of the factors that go to make up these five main divisions.

In scoring the buildings, three judges scored each building. The medians of the judgments rendered were utilized in making up the final score. In this way, an erratic score on one item, by any individual, was eliminated.

Table XLIV, following, gives the final scores allotted to each of the five buildings of Lawrence Township on the five main items of the score card and the principal subdivisions of each.

Significance of the Scores It is the opinion of those who have made a careful study of school buildings and the standards as set forth on the Strayer-Engelhardt Score Card for Rural Buildings that when a building scores between 800 and 1,000 points, it is satisfactory and meets the educational demands made upon it.

A building scoring 700 to 800 points is only fairly satisfactory and is usually lacking in many elements that are essential to acceptable administration of a modern educational program.

CHART No. 16

Strayer-Engelhardt Score Card For Rural School Building
Score of Building

	1	2	3		1	2	3
I. SITE			160				
A. Location		65				20	
1. Accessibility	30				5		
2. Environment	35				5		
B. Drainage		40			5		
1. Elevation	20					50	
2. Nature of Soil	20				20		
C. Site, Form and Use	45	45			15		
D. Flagpole	10	10			5		
II. BUILDING			200				
A. Placement		40				60	
1. Orientation	25				15		
2. Position on Site	15				10		
B. Gross Structure		90			10		
1. Type	20				5		
2. Material	10				5		
3. Height	10				10		
4. Roof	5				5		
5. Foundation	10				5		
6. Walls	10				10		
7. Entrances	10				5		
8. Aesthetic Balance	5				10		
9. Condition	10						
C. Internal Structure		70					
1. Stairways and Corridors	25						
2. Basement	30						
3. Color Scheme	10						
4. Attic	5						
III. SERVICE SYSTEMS			250				
A. Heating and Ventilation		55					
1. Kind	20						
2. Installation and Distribution	10						
3. Air Supply	15						
4. Fans and Motors	5						
5. Temperature Control	5						
B. Fire Protection		20					
1. Apparatus	5						
2. Fireproofness	5						
3. Exits	5						
4. Light Installation	5						
C. Cleaning System		25					
1. Kind and Equipment	10						
2. Efficiency	15						
D. Artificial Lighting		20					
1. Gas or Electricity	5						
2. Outlets and Fixtures	10						
3. Illumination	5						
E. Schedule and Emergency Equipment							
1. Clock	5						
2. Bell	5						
3. Telephone	5						
4. First Aid	5						
F. Water Supply System							
1. Drinking	20						
2. Washing	15						
3. Bathing	5						
4. Hot and Cold	10						
G. Toilet Systems						60	
1. Placement	15						
2. Fixtures	10						
3. Adequacy	10						
4. Seclusion, Sanitation and Condit'	25						
IV. CLASS ROOMS							225
A. Arrangement	10	10					
B. Construction and Finish			80				
1. Size	20						
2. Shape	15						
3. Floors	10						
4. Walls	5						
5. Doors	5						
6. Closets	5						
7. Blackboards and Bulletin Boards	15						
8. Color Scheme	5						
C. Illumination			60				
1. Glass Area	30						
2. Window Placement	20						
3. Shades	10						
D. Cloakrooms and Wardrobes	20	20					
E. Equipment			55				
1. Seats and Desks	30						
2. Teachers' Desks	5						
3. Other Equipment	20						
V. SPECIAL ROOMS							165
A. Rooms for General Use			80				
1. Play Room	20						
2. Community Room	30						
3. Library	20						
4. Lunch Room	10						
B. Officials' Consultation Room	20	20					
C. Other Special Service Rooms			65				
1. Industrial Arts	30						
2. Household Arts	30						
3. Fuel Room	5						
Totals	1000	1000	1000				

Instructions for Using Card - (1) Basis for Scoring, 1000 points. (2) For scoring three columns are allowed. While actually at work on a building only the first need be filled out, the second and third to be filled out at leisure. (3) Where credit is allowed for any single item not present and not needed in a building draw a circle around such credit. All scores should be recorded on the basis of the standards outlined in the bulletin, The Strayer-Engelhardt Score Card for Rural School Buildings, Bureau of Public-Works Teachers College, Columbia University, N. Y.

TABLE XLIV

FINAL SCORES ALLOTTED BY THE JUDGES USING THE STRAYER-ENGELHARDT RURAL SCHOOL BUILDING SCORE CARD ON THE SCHOOL BUILDINGS OF LAWRENCE TOWNSHIP, MERCER COUNTY, NEW JERSEY*

	Item I			Item II			Item III						Item IV						Item V			Total Score						
	A	B	C	D	Total	A	B	C	A	B	C	D	E	F	G	Total	A	B	C	D	E		Total	A	B	C	Total	
	Slackwood	35	18	10	4	67	25	44	31	100	35	9	8	11	5	25	28	121	5	58	35		10	39	147	15	8	10	33	468
Eldridge Park	35	10	10	5	60	28	48	27	103	23	8	8	10	5	8	17	79	4	44	40	10	30	128	8	4	3	15	385
Lawrenceville	30	10	10	8	58	28	37	19	84	19	5	7	6	8	10	15	70	4	35	32	8	30	109	4	0	3	7	328
Clarksville	35	10	10	5	60	30	37	8	75	36	3	10	3	3	11	24	90	5	40	25	5	25	90	0	0	2	2	327
Rosedale	35	25	10	5	75	22	43	5	70	25	3	15	0	8	15	24	90	10	40	27	5	30	112	0	0	3	350	

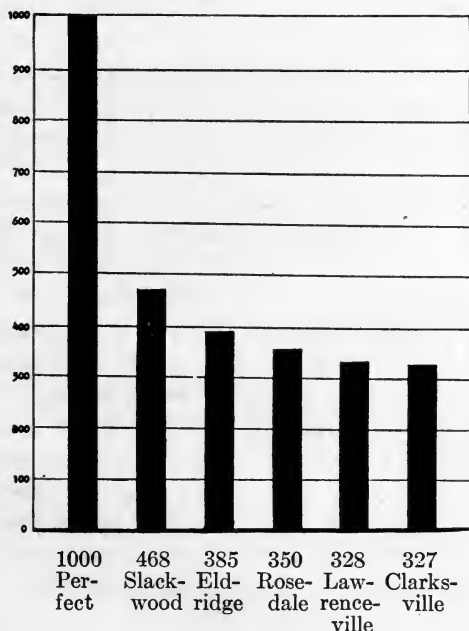
*When using the Score Card, judges frequently give credit, as they have in this case, for items which are lacking and which are not needed in the buildings which are being scored.

A building scoring between 500 and 600 may, by extensive alterations and repairs be raised to a fairly satisfactory standard of adequacy. A community would be justified in thus increasing the efficiency of a building falling within this group.

When a building scores less than 500 points, the community should look forward immediately towards providing a better and more adequate educational plant. It is hardly probable that the amount of money required to bring this type of building up to a point of adequacy would be a justifiable expenditure for the community.

In Chart No. 17 are shown graphically the scores allotted to the Lawrence Township buildings. All of the buildings scored less than 500 points, with Slackwood falling within the 450 to 500 point group. Slackwood's score falls lower than 500 because of the inadequacy of the old part of the building. If the new part were scored alone, it would score considerably above 500 points. When one con-

CHART NO. 17.



Total Scores Allotted the Five Buildings of Lawrence Township on the Strayer-Engelhardt Score Card for Rural School Buildings.

siders that these scores consolidate the judgment of three judges concerning the adequacy of the school buildings, it is clear that the citizens of Lawrence Township should take action to develop more adequately its physical plant. Since the three largest school buildings are also overcrowded, the opportune moment has come for the consideration of a school building development which will satisfy the needs of the community ten and fifteen years from now as far as such needs may at present be anticipated.

Unfortunately, in the planning of the Eldridge Park and Lawrenceville schools, no thought was given to the need for future extensions of the buildings to provide for increases in enrolment. There is little possibility of extending these plants today at a reasonable cost and in such a way as to develop a school plant which will be satisfactory ten years from today. It has been pointed out that Lawrence Township is a growing community and will continue to grow. It is possible at this time to anticipate with considerable degree of certainty the school building needs of Lawrence Township over the next decade or more. The Board of Education will be accepting its responsibility when it plans the expenditure of any money entrusted to it for school building purposes with this extended program in mind. The present undesirable location of the school building sites of Eldridge Park and Lawrenceville, the impossibility of making additions without excessive cost, the primitive nature of certain service provisions, the inadequacy of the natural lighting and the almost complete lack of fire protection, indicate that the future was not taken sufficiently into consideration when the present buildings were planned.

School Building Sites As both the Eldridge Park and Lawrenceville schools develop into fairly good-sized schools, it will be found necessary to have larger play areas than are at present available. It will be exceedingly unwise to concentrate a large group of children at either one of these schools and fail to provide a play area of at least 200 square feet per pupil. With the present enrolment, the playground areas are 136 square feet per pupil for the Eldridge Park School and 76 square feet for the Lawrenceville school. Any addition to the buildings on the present sites would reduce these playgrounds to a very undesirable point.

TABLE XLV

PLAYGROUND—PUPIL ENROLMENT BASIS

(Enrolment Figures, January 1922)

Showing Area in Square Feet of Open Space and Playground and Area in Square Feet Per Pupil Enrolment of Open Space and Playground and Amount of Playground Equipment

LAWRENCE TOWNSHIP

School	Area in Square Feet of				Jan- uary 1922 Pupils En- rolled	Area in sq. ft. per pupil enrolled		Play- ground Equip- ment
	Total Site	Build- ings	Open Space	Play- grounds		Of Open Space	Of Play- ground	
Slackwood	58,500	6,164	52,336	42,900	317	165	135	None
Eldridge Park	33,350	3,540	29,810	25,000	183	162	136	None
Lawrenceville	36,100	1,980	34,120	*13,500	179	191	76	3 pieces appa- ratus
Clarksville	13,500	720	12,780	6,000	19	673	317	None
Rosedale	16,800	720	16,080	14,000	24	670	583	1 slide

Building Structures The outstanding faults in the building structures are the combustible nature of the buildings, the lack of adequate exits in case of fire in the Eldridge Park building, the poor planning of classrooms, corridors and stairways, failure to isolate the heating plant from the rest of the building by fireproof partitions, the lack of special rooms for the purpose of promoting the special activity program of the school, the inadequate natural lighting and the faulty shape of classrooms which are planned on a wrong axis, the primitive toilet provisions and the lack of adequate artificial lighting. In any new construction, the Board of Education should require close adherence to the most acceptable standards of school building construction. It is sincerely hoped that no effort will be made to build additions to the present school structures and to duplicate the construction faults which are so outstanding in the present buildings.

*Not including space across road.

Decoration and Cleaning Too little attention has been directed to the decoration of classrooms and corridors in the school buildings. The majority of school rooms are uninviting and indicate the failure to develop the proper surroundings for the child during his learning period. Particularly objectionable is the decoration in the old section of the Slackwood School. The classrooms, corridors and stairways of the three larger school buildings in Lawrence Township are in such condition as to indicate that a very inadequate program of cleaning had been developed. It is surprising to find that so little care had been paid to good school-housekeeping. The two one-room schools stood out in direct contrast to the three larger schools in this respect. The program for janitorial service in the last three schools left much to be desired. The buildings and grounds may fail in many respects in meeting modern standards, but the school buildings can at least be clean at all times and fit for occupancy by children.

Care of the Heating Plant In even a four-room school, it seems most undesirable to permit janitors to leave the building when fires are on and when school is in session. This is the more undesirable in Lawrence Township because of the non-fireproof nature of the school buildings. Apparently the practice of leaving the building has been followed by the janitors. The breakdown in the heating plant of the Eldridge Park School, necessitating the closing of school for a period of time and the purchase of new heating equipment, without doubt resulted from this practice. There is no evidence that the responsibility for directing the janitors has been assumed by the proper officer. Apparently, janitors are allowed to follow their own desires in the care of their schools, and are not required to pursue a program which best meets the local school requirements.

Classrooms and Equipment In many respects, the classrooms of the new Slackwood addition are quite satisfactory and in sharp contrast to the classrooms of the other schools. In all new construction, it will be desirable to light the classrooms from one side only instead of from two sides as has been done in the Eldridge Park and Lawrenceville schools and to adhere to the other standards of size, shape, heights of blackboards, classroom decora-

tion, artificial lighting, cloakroom provisions and the like which are to be found in the Strayer-Engelhardt Bulletin for Rural Schools.*

The utilization of the playroom provided in the Slackwood School for the purpose of storing material used in the summer time for other community purposes is an indication that the proper use is not being made of the school plant and that apparently the school program is not directed to a point where a playroom can fill any definite need. The special room provisions in the Lawrence Township schools are exceedingly meagre. In this respect, Lawrence Township compares most unfavorably with other progressive communities in New Jersey.

In relieving the present crowded conditions, the Board of Education should give careful consideration, in the development of any new plant, to the inclusion of a community room, library facilities, auditorium, indoor play facilities, domestic arts and manual arts quarters, and should also make provision for an agricultural or general science laboratory.

THE SCHOOL BUILDING PROGRAM

The children attending the Lawrence Township schools are distributed among the grades, according to reports of the teachers, as shown in Table XLVI.

TABLE XLVI
DISTRIBUTION OF CHILDREN BY GRADES AND SCHOOLS
LAWRENCE TOWNSHIP
January 1922
Grades

<i>Schools</i>	<i>Reception</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>	<i>Total</i>
Slackwood	34	29	29	22	45	44	37	46	24	310
Eldridge Park	42	32	25	10	31	29	14			183
Lawrenceville	13	17	26	15	22	26	24	18	18	179
Rosedale		4	4	7		7	2			24
Clarksville	5		5	2	7					19
<i>Total</i>	<i>94</i>	<i>82</i>	<i>89</i>	<i>56</i>	<i>105</i>	<i>106</i>	<i>77</i>	<i>64</i>	<i>42</i>	<i>715**</i>

*Published by Bureau of Publications, Teachers College, Columbia University, New York City.

**Withdrawals excluded.

The pupils who are being transported to Slackwood are distributed among the grades as follows:—

Reception.....	7
First Grade.....	7
Second “	7
Third “	4
Fourth “	11
Fifth “	14
Sixth “	13
Seventh “	8
Eighth “	7
Total.....	78

If these children were not to be transported to Slackwood, the Slackwood enrolment would be approximately 230. This enrolment could be adequately cared for in the eight rooms of the Slackwood School, together with the normal increase for another year.

The number of children who now live in what might be called the Clarksville and Bakers Basin sections is approximately 97. These children are distributed by grades as follows:—

Number of Children in the Clarksville and Bakers Basin Sections

Reception.....	12
First Grade.....	7
Second “	12
Third “	6
Fourth “	18
Fifth “	14
Sixth “	13
Seventh “	8
Eighth “	7
Total.....	97

New Buildings The Board of Education has already recognized the need for planning new buildings. An architect has been engaged and plans for a new building have already been outlined. These plans indicate that the Board of Education has considered the need for providing a modern school plant.

In planning new construction, it is wise to give first attention to the districts north of Slackwood. A new building must also take into consideration the needs of the 7th, 8th and 9th grade children with the idea of beginning the development of a junior high school.

Number of Junior High School Children, September 1922

If one were to take the 6th, 7th and 8th grade children of the January 1922 enrolment, one would secure the approximate number of children who should be cared for in the 7th, 8th and 9th grades in September 1922. These 6th, 7th and 8th grade children are distributed on Map No. 3 according to their approximate residences. Of these children, 77 will be in the 6th grade, 64 in the 7th grade and 42 in the 8th grade, if they are promoted and continue in school. These children are distributed among the school districts, as follows:—

Slackwood District (South of	
Shabakunk Creek).....	47
Lawrenceville District.....	48
Eldridge Park “.....	54
Clarksville & Bakers Basin.....	29
Rosedale.....	5
Total (including the Slackwood Section).....	183
Total (eliminating Slackwood Section).....	136

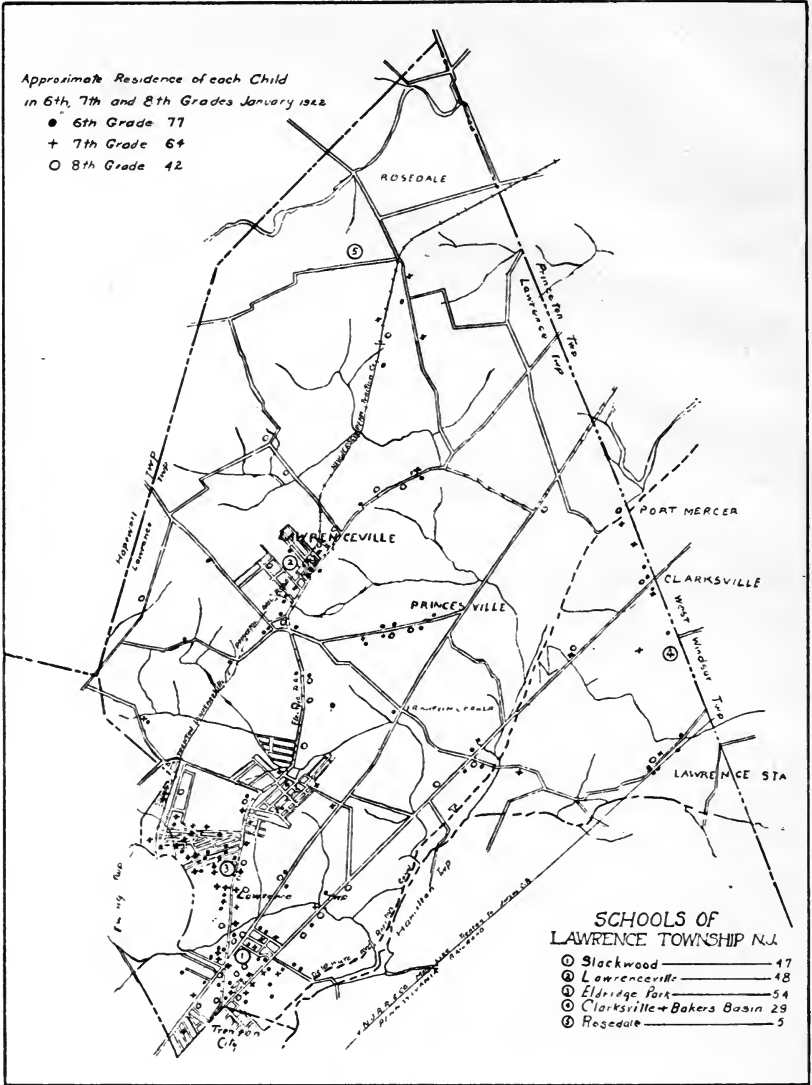
This number would make a good beginning for a junior high school. With the idea of getting a school centrally located for the township, it is recommended that the first junior high school be developed in connection with the Lawrenceville district.

Further Relief For Slackwood

At present, 30 pupils of the 7th and 8th grade, who live in the Eldridge Park district, are attending the Slackwood School. These children are included in the junior high school summary above. This would provide further relief for Slackwood and easily make possible accommodations in Slackwood for an increase in the Slackwood School population for a period of two, three or more years.

Proposed New Building at Lawrenceville

If a new building were planned at Lawrenceville, to take care of all the present Lawrenceville enrolment, all Eldridge Park enrolment of grades 5 to 9 for the year 1921, all Rosedale enrolment and all Clarksville and Bakers Basin enrolment, together with the esti-



MAP No. 3.

mated increase in enrolment for another year, the total number for whom accommodation would be needed in the new Lawrenceville building would be 430.

Such a comprehensive plan of consolidation is, however, not advisable at the present time. The consolidation will depend upon the ability of the community to further develop its building program within a short period of time.

The building suggested for Lawrenceville should be located on a ten acre site at a point where the building will be easily accessible. The building and site should be so developed as to become a matter

TABLE XLVII

CHILDREN TO BE EXPECTED AT LAWRENCEVILLE IF PLANT IS LOCATED THERE

<i>Schools</i>	<i>R*</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>Totals</i>
Lawrenceville	13	16	28	13	22	26	24	18	18	178
Eldridge Park					31	24	16	22	8	101
Rosedale		4	5	6		7	2			24
Clarksville and Bakers Basin	12	7	12	6	18	14	13	8	7	97
<i>Totals</i>	<i>25</i>	<i>27</i>	<i>45</i>	<i>25</i>	<i>71</i>	<i>71</i>	<i>55</i>	<i>48</i>	<i>33</i>	<i>400</i>
<i>Estimated Increase for 1922</i>										<i>30</i>
<i>Total</i>										<i>430</i>

of local pride and satisfaction and an evidence of community interest in education. A site immediately to the south of Lawrenceville center should be selected, but care should be taken not to go so far south as to encroach upon the program outlined below for the Eldridge Park School.

School Provisions in the Clarksville and Bakers Basin Section As pointed out above, provision for approximately 75 children should be made by September 1922 for those attending grades 1 to 6. In the very near future, it will be desirable to plan the beginning of a school building in the vicinity of Bakers Basin. If this building were to be begun immediately, provision should be made for three teachers in three rooms. This building, as well as the building suggested for the Lawrenceville section, should be so planned

*R stands for reception grade.

as to make a maximum of addition possible. The elimination of these children from the projected Lawrenceville School, and also the retention of the Rosedale School on its present site for a period of time would leave for the Lawrenceville School a total of approximately 330 children for whom provision must be made.

Size of Proposed Lawrenceville Building On the basis of present enrolment and a complete consolidation at Lawrenceville as projected in Table XLVII, the proposed Lawrenceville plant would require sixteen rooms. This would permit of growth over a three or four year period before additions became necessary. It would also provide relief for any overcrowding in the Eldridge Park School during this period. This provision, as outlined above, will leave 109 children of the present enrolment at Eldridge Park. This present enrolment, together with the expected increase of approximately 25 pupils, could be housed in the Eldridge Park School for at least a year.

Under the second plan proposed for the Lawrenceville section, with the pupils of Clarksville, Bakers Basin and Rosedale eliminated, the enrolment which will be left will require twelve classrooms. These twelve classrooms will suffice for a period of three or four years and may be utilized in this period to offset any overcrowding occurring in the Eldridge Park School.

The Eldridge Park School As has been pointed out, the Eldridge Park School cannot be economically retained as a basis for additions. The portable utilized at Eldridge Park should be discarded at the earliest possible moment. Within a short period, it will become necessary to begin a new school building in this section of the township. A large site of six to ten acres should be procured for this purpose and a modern building planned which will provide for the needs of children of the kindergarten and first six grades. It is most desirable that a kindergarten be added in this section. In fact, the reception grade in all the three large districts should be displaced by a kindergarten. Ultimately, this new Eldridge Park School may become a sixteen to twenty room elementary school, with the Lawrenceville School always providing the arrangements for children of the 7th, 8th and 9th Grades of this section.

PART VII

SCHOOL COSTS

In Table XLVIII are given the amounts expended by the Lawrence Township Board of Education for all educational purposes for the years 1913 to 1921. The current expenditures in this table are distributed on the basis of administration, instructional costs, operation of plant, maintenance of plant, auxiliary agencies and certain items involving transportation. The grand total of all current expenses has increased from \$15,696., in 1913-1914 to \$51,198., in 1920-1921, or 226%. During the same period, the average daily attendance has grown from 351 to 592, not including high school pupils, or 69%. The largest increase has been in instructional costs which have changed from \$9,925., to \$32,146., or a total increase of \$22,221. The increase in instructional costs over this period of years is nearly half of the present grand total for current expenses. Another large increase is in tuition fees paid other districts. For the one year, 1919-1920, these tuition fees increased approximately 140%, again, no doubt, largely due to the fact that they involved in such a large degree increases in teachers' salaries elsewhere.

Chart No. 18 shows the relationship between increases in costs and increases in pupil population and the teaching staff.

In Table XLIX, these costs are distributed on the basis of the number of children in average daily attendance over the six major items of expenditure. In Table XLIX, the tuition fees and cost of transportation for all high school and elementary pupils attending schools in other districts are not included. Table XLIX should be read in conjunction with Table L. In the latter table, the items of Table XLIX are given in terms of the percentage which each of the six major functions of accounting bears to the total expenditure. The increase in administration, the fluctuation in instructional costs, the drop in cost of operation and maintenance are the outstanding elements in this table.

Comparative Costs For purposes of comparison with other communities which have similar school problems to those of Lawrence Township, Table LI has been prepared. The positions of the districts on this table have been determined on the basis of the expenditures for the school year 1920-1921. Lawrence

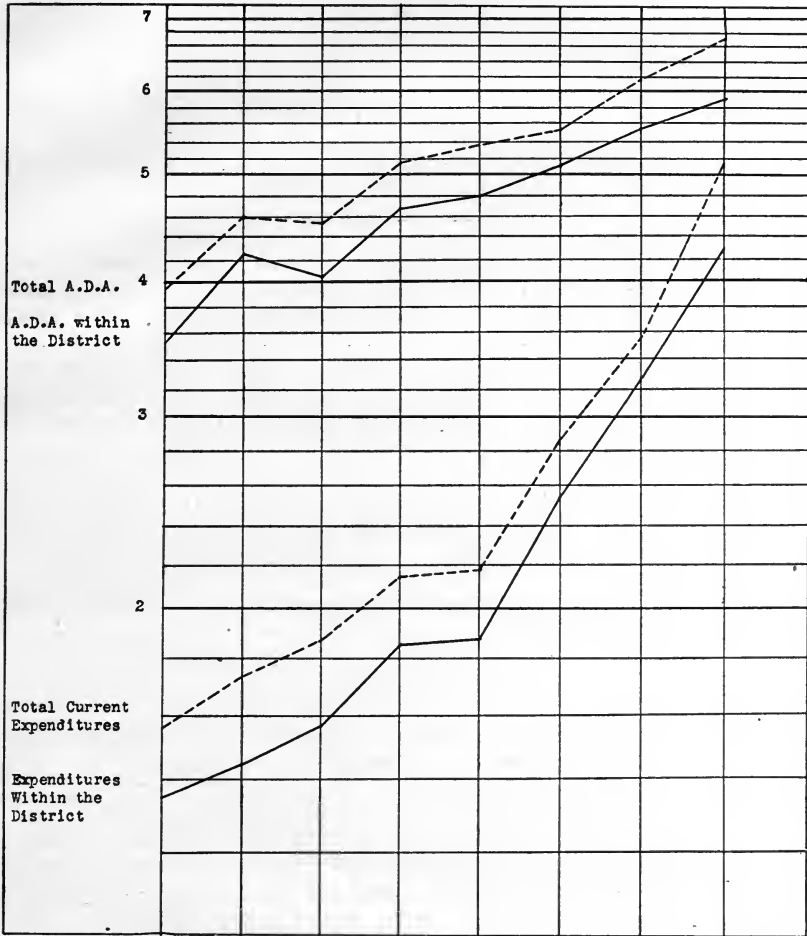
TABLE XLVIII
CURRENT EXPENDITURES IN LAWRENCE TOWNSHIP, MERCER COUNTY, NEW JERSEY

Year	Admin- istra- tion	Instruction	Operation of Plant	Mainten- ance of Plant	Auxiliary Agencies	Miscel- laneous	Trans- portation to other districts	Tuition Fees	Total Ex- penditures within the district	Grand total Operating Expenses
1913-14	188.30	9,925.27	1,849.41	828.88	561.50	61.87	593.65	1,688.00	13,415.23	15,696.88
1914-15	302.27	10,311.37	1,672.45	981.07	928.76	52.19	905.58	2,080.00	14,248.11	17,233.69
1915-16	327.84	12,361.40	1,671.65	936.57	591.36	55.36	927.95	2,023.00	15,944.18	18,895.13
1916-17	373.65	13,955.84	2,445.83	1,158.56	485.26	67.36	855.39	2,356.00	18,486.50	21,697.89
1917-18	658.85	13,283.89	2,982.63	1,279.38	473.00	101.34	729.85	2,125.00	18,779.09	21,633.94
1918-19	892.00	17,509.53	3,028.43	1,097.96	2,656.50	128.40	953.09	2,215.00	25,312.82	28,480.91
1919-20	853.40	23,513.49	3,345.60	780.32	3,200.99	482.33	1,143.54	2,656.25	32,176.13	35,975.92
1920-21	900.26	32,146.46	3,947.69	2,022.40	3,437.86	414.25	1,987.03	6,342.50	42,868.92	51,198.45

"Transportation to other districts" has been deducted from "auxiliary agencies" and entered as a separate column. "Tuition fees" have been deducted from "miscellaneous" and entered as a separate column. "Total expenditures within the district" do not include "transportation to other districts" and "tuition fees".

CHART No. 18

Showing the Comparison in Lawrence Township From 1913-1921 Between Expenditures within the District Total, Current Expenditures, Average Daily Attendance within the District and Total Average Daily Attendance.



1913-14 14-15 15-16 16-17 17-18 18-19 19-20 20-21

Township holds eighth place in this group, with an expenditure of \$76.19 per pupil in average daily attendance. Morris Township expends \$135. per pupil, while Clementon Township spends \$14. less than Lawrence Township. The rank which Lawrence Township has held in this group over a period of the last six years is clearly shown in Chart No. 19. Lawrence Township has dropped from rank six to rank eight over this period.

TABLE XLIX

COST OF ELEMENTARY EDUCATION PER PUPIL IN LAWRENCE TOWNSHIP BASED ON AVERAGE DAILY ATTENDANCE

Year	Average Daily Attendance	Admin-istration	Instruc-tion	Opera-tion of Plant	Main-tenance of Plant	Auxili-ary Agencies	Miscel-laneous	Total Expend-itures
1913-14	351	.54	28.27	5.27	2.36	1.60	.18	38.22
1914-15	421	.72	24.50	3.97	2.33	2.21	.12	33.84
1915-16	401	.82	30.84	4.7	2.34	1.48	.14	39.77
1916-17	468	.80	29.81	5.23	2.48	1.04	.14	39.50
1917-18	481	1.37	27.62	6.20	2.66	.98	.21	39.04
1918-19	513	1.74	34.13	5.90	2.14	5.18	.25	49.34
1919-20	554	1.54	42.44	6.04	1.41	5.78	.87	58.08
1920-21	592	1.52	54.30	6.67	3.42	5.80	.70	72.41

Tuition fees and cost of transportation for all elementary and high school pupils attending school in other districts are not included in this table.

TABLE L

PERCENTAGE OF CURRENT EXPENDITURES FOR THE VARIOUS DISTRIBUTIONS OF COST IN LAWRENCE TOWNSHIP FOR EIGHT YEARS

Year	Adminis-tration	Instruction	Operation of Plant	Main-tenance of Plant	Auxiliary Agencies	Miscel-laneous
1913-14	1.4	73.9	13.8	6.1	4.2	.6
1914-15	2.1	72.4	11.7	6.9	6.5	.4
1915-16	2.0	77.5	10.5	5.9	3.7	.4
1916-17	2.0	75.5	13.2	6.3	2.6	.4
1917-18	3.5	70.8	15.9	6.8	2.5	.5
1918-19	3.5	69.3	12.0	4.3	10.4	.5
1919-20	2.6	73.1	10.4	2.4	10.0	1.5
1920-21	2.1	75.0	9.3	4.7	8.0	1.0

In Table LI and Chart No. 19, the tuition fees and cost for transportation for pupils attending schools in other districts have been included.

TABLE LI

COST OF EDUCATION

Current Expenditures Per Pupil in Average Daily Attendance in Lawrence and Ten Other Townships in New Jersey Plus the Cost of Those Living in the District but Attending School in Other Districts

<i>Townships</i>	<i>1915-16</i>	<i>1916-17</i>	<i>1917-18</i>	<i>1918-19</i>	<i>1919-20</i>	<i>1920-21</i>
Morris	\$94.13	\$93.60	\$103.32	\$108.45	\$128.79	\$135.33
Teaneck	47.88	57.58	64.52	61.05	92.33	103.00
Ewing	52.40	53.60	52.72	61.25	70.44	95.62
Passaic	58.52	58.53	64.81	64.12	73.32	95.15
Princeton	38.48	36.44	59.44	58.97	80.74	94.16
Hohokus	49.57	52.28	48.85	64.84	73.95	82.48
Beverly	39.47	38.09	40.43	49.18	61.41	77.65
LAWRENCE	41.26	42.05	40.51	51.60	59.07	76.19
Gloucester	35.58	43.73	45.91	51.49	59.18	64.25
Buena Vista	41.04	38.83	44.30	45.70	52.42	63.37
Clementon	33.49	39.33	37.28	59.04	52.60	62.25

This table includes expenditures for transportation and tuition for all elementary and high school pupils attending school in other districts.

In Table LII, the cost of elementary schools is given on a unit basis. Here are recorded the total current expenditures per pupil for eight years in Lawrence and ten other townships, with the cost based on average daily attendance. In this case, tuition fees and cost of transportation for all elementary and high school pupils attending school in other districts are not included. When these costs for elementary schools only are taken into consideration, Lawrence Township holds a position which has varied from eighth place to seventh place over the period 1913-1921, having dropped to ninth place in 1917-1918, as shown in Chart No. 20.

CHART NO. 19

Chart Showing the Rankings for Six Years of Lawrence and Ten other New Jersey Townships on the Basis of Current Expenditures for All School Purposes Per Pupil in Average Daily Attendance.

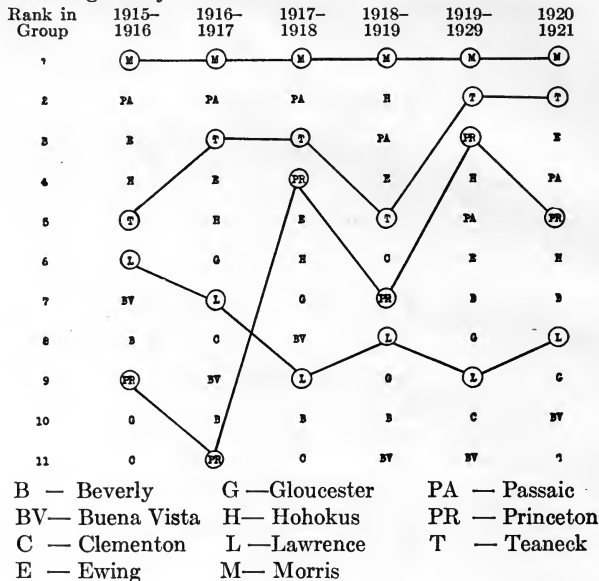


TABLE LII

COST OF ELEMENTARY SCHOOLS

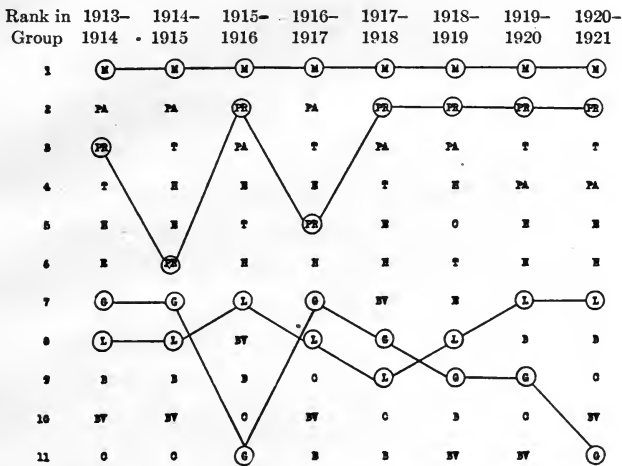
Total Current Expenditures Per Pupil for Eight Years in Lawrence and Ten Other Townships in New Jersey Based on Average Daily Attendance

Townships	1913-1914	1914-1915	1915-1916	1916-1917	1917-1918	1918-1919	1919-1920	1920-1921
Morris	\$92.33	\$88.68	\$103.74	\$101.14	\$114.88	\$115.89	\$140.13	\$146.46
Princeton	54.88	39.76	58.49	50.35	72.18	71.72	99.18	113.11
Teaneck	48.55	47.22	52.89	55.37	63.77	58.82	93.18	101.99
Passaic	59.32	55.10	56.07	57.85	64.34	65.50	77.45	92.42
Ewing	40.70	44.18	53.57	50.65	51.15	57.05	67.90	89.87
Hohokus	48.49	44.88	46.68	49.79	45.78	61.96	72.21	80.88
LAWRENCE	38.23	33.84	39.76	39.51	39.04	49.34	58.08	72.41
Beverly	36.46	33.58	36.23	34.72	36.77	44.93	56.29	70.16
Clementon	29.64	27.90	32.21	38.49	37.44	60.70	53.91	63.05
Buena Vista	33.33	32.42	39.75	37.22	44.30	44.82	51.55	60.58
Gloucester	39.99	37.39	31.22	43.62	42.74	48.40	54.59	60.28
<i>Median Township</i>	<i>40.70</i>	<i>39.76</i>	<i>46.68</i>	<i>49.79</i>	<i>45.78</i>	<i>58.82</i>	<i>67.90</i>	<i>80.88</i>

Tuition fees and cost of transportation for all elementary and high school pupils attending school in other districts are not included in this table.

CHART NO. 20.

Chart showing the Rankings for Eight Years of Lawrence and Ten Other Townships in New Jersey on the Basis of Expenditures in the Elementary Schools Per Pupil in Average Daily Attendance.



- | | | |
|------------------|----------------|----------------|
| B — Beverly | G — Gloucester | PA — Passaic |
| BV — Buena Vista | H — Hohokus | PR — Princeton |
| C — Clementon | L — Lawrence | T — Teaneck |
| E — Ewing | M — Morris | |

In Table LIII are given the costs for elementary schools for Lawrence and ten other townships, based on average daily attendance, with the cost divided among the various functions of accounting. Lawrence Township ranks sixth among the group in costs for administration, fifth in instructional costs, tenth in operating costs, ninth in costs of maintenance of plant and fifth in costs for auxiliary agencies.

TABLE LIII

COST OF ELEMENTARY SCHOOLS FOR 1920-1921

Current Expenditures Per Pupil of Lawrence and Ten Other Townships in New Jersey Based on Average Daily Attendance

<i>Townships</i>	<i>Admin- istration</i>	<i>Instruc- tion</i>	<i>Opera- tion of Plant</i>	<i>Mainte- nance of Plant</i>	<i>Auxili- ary Agen- cies</i>	<i>Miscel- laneous</i>	<i>Total Expendi- tures</i>
Morris							
Morris Co.	\$2.02	\$98.27	\$21.17	\$7.59	\$16.17	\$1.24	\$146.46
Princeton							
Mercer Co.	3.19	53.46	12.59	6.06	37.40	.41	113.11
Teaneck							
Bergen Co.	1.30	80.07	14.66	4.01	1.48	.47	101.99
Passaic							
Morris Co.	2.82	58.39	10.28	10.95	8.81	1.17	92.42
Ewing							
Mercer Co.	2.24	51.76	17.21	7.70	10.96	.00	89.87
Hohokus							
Bergen Co.	1.53	61.28	11.31	4.30	1.57	.09	80.88
LAWRENCE							
Mercer Co.	1.52	54.30	6.67	3.42	5.80	.70	72.41
Beverly							
Burlington Co.	.99	52.66	8.69	1.05	2.51	4.66	70.16
Clementon							
Camden Co.	1.10	43.40	9.62	4.41	3.25	1.28	63.05
Buena Vista							
Atlantic Co.	1.45	43.91	5.61	4.68	4.61	.32	60.58
Gloucester							
Camden Co.	1.70	47.28	8.74	1.67	.89	.00	60.28

Tuition fees and cost of transportation for all elementary and high school pupils attending schools in other districts are not included in this table.

Table LIV and Chart No. 21 show the variations in costs for instruction only for each of these townships for the period 1913-1921. The figures and ranks in this table and chart are based upon cost per pupil in average daily attendance. Percentages of increase over the year 1913-1914 are as follows:—

Morris Township	92%
Teaneck “	146%
Hohokus “	79.5%
Passaic “	34.9%
Lawrence “	92.1%
Princeton “	42.8%
Beverly “	104.4%
Ewing “	86.2%
Gloucester “	64.1%
Buena Vista “	67.8%
Clementon “	99.6%

Lawrence Township has been at the median point in this distribution for one year, namely 1919-1920, but is below the median in each other year. Lawrence Township's percentage of increase is 92.1%.

TABLE LIV

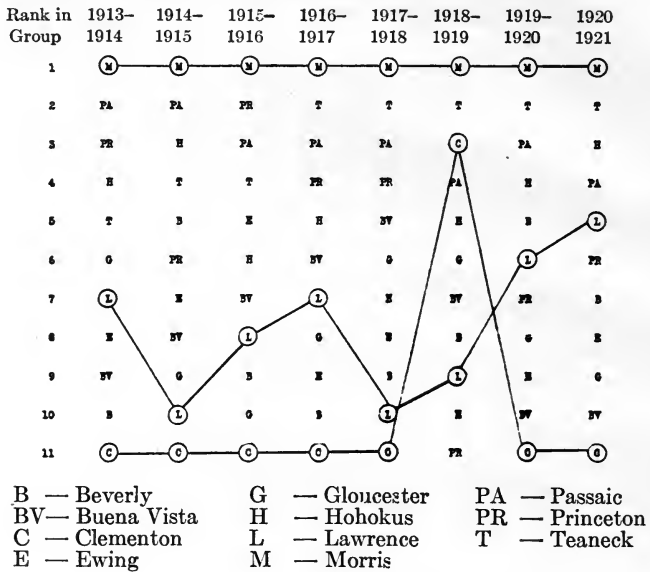
COST OF INSTRUCTION

Expenditures for Instruction Per Pupil in Lawrence and Ten Other Townships in New Jersey for Eight Years Based on Average Daily Attendance

Townships	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21
Morris	\$51.25	\$34.74	\$66.14	\$63.87	\$72.04	\$77.30	\$92.05	\$98.27
Teaneck	32.51	29.45	35.56	39.21	41.85	45.58	61.85	80.07
Hohokus	34.15	31.15	32.06	32.29	32.23	37.62	44.29	61.28
Passaic	43.30	36.64	38.22	38.13	38.42	40.65	50.31	58.39
LAWRENCE	28.28	24.50	30.85	29.82	27.62	34.13	42.44	54.30
Princeton	37.43	27.63	40.25	37.79	34.86	30.64	42.37	53.46
Beverly	25.56	28.57	27.94	28.24	28.63	34.42	43.62	52.26
Ewing	27.83	27.41	32.65	28.85	29.80	30.89	39.17	51.76
Gloucester	29.40	25.90	24.70	29.43	33.69	37.01	41.65	47.28
Buena Vista	26.17	26.20	30.95	30.66	33.71	35.64	38.84	43.91
Clementon	21.75	20.87	22.92	28.13	26.51	42.52	34.45	43.40
<i>Median Township</i>	<i>29.40</i>	<i>27.63</i>	<i>32.06</i>	<i>30.66</i>	<i>33.69</i>	<i>37.01</i>	<i>42.44</i>	<i>53.46</i>

CHART No. 21

Chart Showing the Ranking for Eight Years of Lawrence and Ten Other Townships in New Jersey on the Basis of Expenditures For Instruction Per Pupil in Average Daily Attendance.



In Tables LV and LVI will be found the per pupil expenditure for administration and for operation and maintenance of plant for each of the eleven townships over the period 1913-1921.

In the cost of administration, Lawrence Township holds a position which is low. This is desirable, providing the problems of administration are being carefully and thoroughly handled.

In costs of operation and maintenance, Lawrence Township also holds a position which is low. If Lawrence Township maintained and operated their school buildings on an efficient basis, these low costs would be satisfying. It has, however, been pointed out that the standards of operation and maintenance for Lawrence Township have been exceedingly low. It is gratifying to discover that costs have been no higher with the standards that have been maintained.

TABLE LV

COST OF ADMINISTRATION

Expenditures Per Pupil for Administration in Lawrence and Ten Other Townships
in New Jersey for Eight Years Based on Average Daily Attendance

<i>Townships</i>	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21
Princeton	\$.95	\$1.42	\$1.39	\$2.21	\$1.47	\$4.38	\$3.63	\$3.19
Passaic	1.97	2.16	1.42	2.21	1.98	2.46	2.30	2.82
Ewing	.91	.87	1.03	1.33	1.12	1.70	2.04	2.24
Morris	2.28	2.65	2.42	4.23	3.10	2.06	2.14	2.02
Gloucester	1.93	2.61	1.53	.43	1.65	1.53	1.61	1.70
Hohokus	1.13	1.46	1.55	1.69	1.74	2.39	2.29	1.53
LAWRENCE	.72	.54	.82	.80	1.37	1.74	1.54	1.52
Buena Vista	.93	.78	.85	1.10	1.20	1.23	1.06	1.45
Teaneck	1.75	1.70	1.73	1.55	1.65	1.57	1.65	1.30
Clementon	.65	.79	1.05	1.32	1.46	2.09	1.67	1.10
Beverly	.74	.48	.67	.49	.67	1.26	.95	.99

TABLE LVI

COST OF OPERATION AND MAINTENANCE OF PLANT

Expenditures Per Pupil for Operation and Maintenance of Plant in Lawrence
and Ten Other Townships in New Jersey for Eight Years Based on
Average Daily Attendance

<i>Townships</i>	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21
Morris	\$17.21	\$14.24	\$17.50	\$17.54	\$23.53	\$20.24	\$27.72	\$28.76
Ewing	6.42	6.93	8.66	10.51	9.35	14.39	14.86	24.91
Passaic	5.90	7.62	7.86	8.96	9.96	10.13	12.12	21.23
Teaneck	11.26	11.09	11.02	11.48	10.98	9.98	15.38	18.67
Princeton	12.52	8.85	13.34	6.39	5.50	7.60	18.86	18.65
Hohokus	11.89	10.61	10.29	13.00	8.92	16.72	17.14	15.61
Clementon	4.75	4.84	5.22	7.23	7.81	11.88	14.45	14.03
Gloucester	6.63	6.28	3.29	12.29	6.58	9.08	10.04	10.41
Buena Vista	2.75	2.69	4.67	2.63	5.57	4.00	6.33	10.29
LAWRENCE	7.63	6.29	6.51	7.71	8.88	8.04	7.45	10.09
Beverly	9.97	4.33	7.34	5.90	6.02	9.07	10.18	9.74

In Table LVII are shown the variations in costs for tuition only in the present schools of Lawrence Township. Based on average daily attendance, the Clarksville cost per pupil is \$30. more than the

Slackwood cost, or about 70% more than the Slackwood cost. The Rosedale cost is only \$7.00 less than the Clarksville. The costs in Lawrenceville, Eldridge Park and Slackwood are about the same.

TABLE LVII

COST FOR SALARIES OF TEACHERS

Expenditures Per Pupil for Teachers Salaries in the Schools of Lawrence Township for the Year 1920-1921 Based on Average Daily Attendance

<i>Schools</i>	<i>Number of Rooms in School</i>	<i>Average Daily Attendance</i>	<i>Actual Cost</i>	<i>Cost Based on Average Salaries</i>
Clarksville	1	19	\$73.68	\$70.04
Rosedale	1	21	66.67	64.04
Lawrenceville	5	148	44.94	45.43
Eldridge Park	5	156	41.54	43.10
Slackwood	8	222	43.24	42.40
Lawrence Township	20	566	45.01	45.01

The Children's Home School is not included in this table.

The cost figures in the first column are obtained from the actual salaries paid. The figures in the second column are obtained from the average salary paid in the district.

Other Individual School Costs

The system of accounting in Lawrence Township does not permit of detailed costs by individual schools on other items of expenditure. Wherever such costs have been secured for large numbers of schools, it has become clear that costs of operation, maintenance and administration are lower on a per pupil unit basis for the large school plant than they are for a series of small school plants which have equal problems. A higher standard of maintenance and operation, as well as for administration, will raise costs in the new buildings proposed. The educational and social results secured will, however, be so much greater than what are now being secured that the increased cost will bring adequate returns.

PART VIII

ADMINISTRATION AND ORGANIZATION

The schools of Lawrence Township are administered by a board of nine workers, three of whom are chosen at each annual school meeting. Each member holds office for a term of three years. The clerical duties of the board are performed by a paid district clerk. The board has three standing committees which are appointed annually by the board. These committees are—The Teachers: Buildings and Grounds: and Finance. The number of times that matters have been referred to and reported from these standing committees during the years 1920-1921 is as follows:—

<i>Committee</i>	<i>Referred</i>	<i>Reported</i>
Buildings and Grounds	11	12
Teachers	4	16
Finance		26
	<hr style="width: 50px; margin: 0 auto;"/>	<hr style="width: 50px; margin: 0 auto;"/>
Total	15	54

The reports from the committee on "Finance" are approximately 50% of the total number of reports made during this period.

The members of the Board of Education have been very faithful in their attendance at board meetings, the average attendance for a ten year period being 6.9 members, as shown in Table LVIII.

The size of the board is too large, considering the number of people in the township and the size of the school problem. A board of five members, serving overlapping periods for five years, would suffice for the township. It is even conceivable that a board of three members would be satisfactory, especially so if the actual administrative problems are handled by the supervising principal.

Types of Business Transacted by the Board In Table LIX will be found a summary of the work of the board during the last fourteen meetings. The types of business transacted have been divided into routine matters and those involving discussion of the formation or adoption of a school policy. Ninety-three per cent of the business transacted has been of a routine nature, apparently, in most cases, of the kind which should be left in the hands

TABLE LVIII

NUMBER OF MEETINGS AND ATTENDANCE OF THE MEMBERS OF THE BOARD OF
EDUCATION FROM 1912 TO 1921 INCLUSIVE

<i>Year</i>	<i>Number of Meetings</i>	<i>Total Attendance</i>	<i>Average Attendance</i>
1912	13	94	7.2
1913	12	82	6.8
1914	9	61	6.7
1915	13	88	6.7
1916	11	67	6.1
1917	11	68	6.1
1918	9	57	6.3
1919	12	83	6.9
1920	12	98	8.1
1921	14	107	7.6
<i>Total</i>	<i>116</i>	<i>805</i>	<i>6.9</i>

of a chief administrative officer. Of the fourteen items involving educational policy, ten were proposed on the initiative of the board, one on the initiative of the supervising principal, two on the initiative of the county superintendent, and one on the initiative of the tax payer. When a board of nine members endeavors to assume responsibility for routine matters, it is questionable whether a program of education can be satisfactorily advanced.

*Community Interest
in Board Elections*

The average number of votes cast for the ten-year period at the election of school board members was 37. The average number cast at meetings where an annual budget was proposed was 38. The average number of votes cast when resolutions involving building projects were presented to the people for consideration was 66. At no district meeting, with the exception of a special district meeting held in May 1912, has any large number of voters appeared for the purpose of casting votes, thereby showing their interest in school matters.

Table LX gives the distribution of votes cast for all public meetings since March 1911. The total population of Lawrence Township for 1920 has been shown to be 3,686. It is evident that the voters of the community must assume a more direct responsibility for the betterment of their schools than they have assumed in the past.

TABLE LIX

TYPES OF BUSINESS TRANSACTED BY THE BOARD OF EDUCATION DURING THE
YEAR 1921

Date	Types of Business		
	Routine Matters	Methods of Policy	Total
Jan. 3, 1921	13	1	14
Feb. 7, 1921	10		10
Mar. 7, 1921	15		15
Apr. 4, 1921	22	1	23
May 2, 1921	19		19
June 6, 1921	21		21
July 5, 1921	15	1	16
July 19, 1921	3	2	5
Aug. 1, 1921	18		18
Sept. 6, 1921	12	1	13
Oct. 3, 1921	11	2	13
Nov. 7, 1921	19	2	21
Dec. 5, 1921	11	3	14
Dec. 13, 1921	7	1	8
<i>Total</i>	<i>196</i>	<i>14</i>	<i>210</i>
<i>Percentage</i>	<i>92.9</i>	<i>7.1</i>	<i>100</i>

*The Office of the
District Clerk*

The district clerk is the paid secretary of the Board of Education. He may be elected from among the members of the board, or may be from outside the board. The clerk's duties, as specified by law, are as follows:—

“He shall record in a suitable book all proceedings of the Board of Education, of the annual school meetings and of special school meetings. He shall pay out by orders on the custodian of the school moneys of the school district, and in the manner prescribed by all, all school moneys of the district. He shall keep a correct and detailed account of all the expenditures of school moneys in the district, and shall report to the board at each regular meeting the amount for which warrants shall have been drawn since the date of his last report, the accounts against which said warrants shall have been drawn, and the balance to the credit of each account.

TABLE LX

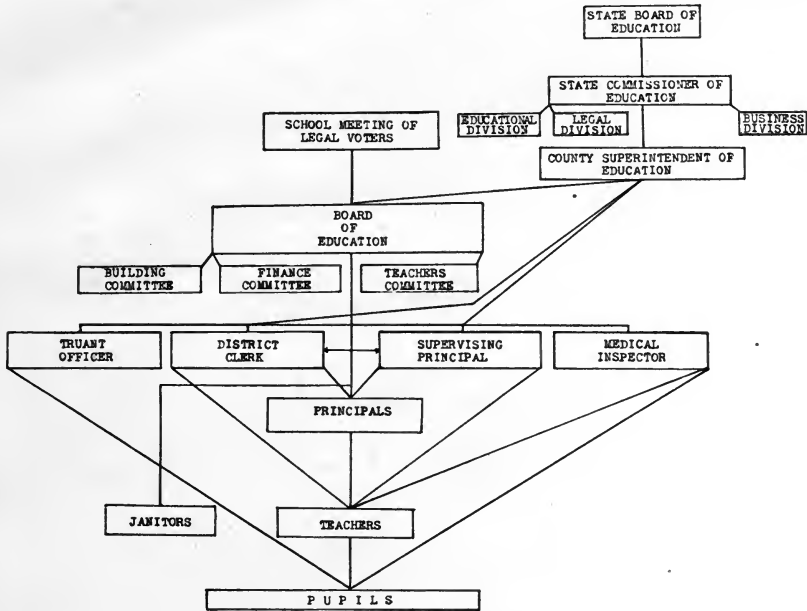
THE NUMBER OF VOTES CAST FOR MEMBERS OF THE BOARD OF EDUCATION,
BUDGET, AND RESOLUTIONS AT THE DISTRICT SCHOOL MEETINGS OF
LAWRENCE TOWNSHIP FROM 1911 TO 1920 INCLUSIVE

Date	Votes Cast		
	For Members	For Budget	For Resolutions
Mar. 21, 1911	55	62	62
Mar. 19, 1912	80	65	
Apr. 30, 1912			94
May 28, 1912			136
Aug. 22, 1912			26
Mar. 18, 1913	No data		
Mar. 17, 1914	9	9	
May 19, 1914			35
Mar. 16, 1915	32	48	48
Mar. 21, 1916	84	84	84
Apr. 18, 1916			90
Mar. 20, 1917	12	12	
Mar. 19, 1918	27	27	
Feb. 18, 1919		11	
Mar. 18, 1919	13		
Mar. 24, 1920	24	24	24
<i>Average of Vote Cast</i>	<i>37.3</i>	<i>38.0</i>	<i>66.6</i>

At each annual school meeting, he shall present his record books and his accounts for public inspection, and shall make a statement of the financial condition of the district. He shall post notices of the annual and special meetings of the legal voters—and during the month of July in each year he shall present to the Board of Education a detailed report of the financial transactions of the Board during the preceding school year; and file a copy thereof with the County Superintendent of Schools.—In case any money shall be ordered to be raised by special tax, the district clerk shall make out and sign a certificate thereof, —, that the same is correct—, and deliver the same to the Board of Taxation of the county—, and shall send a duplicate to the County Superintendent of Schools.”

For this service, the board pays \$500. a year. In a school system where only twenty teachers form the staff, it is questionable whether both district clerk and a supervising principal are needed. It is recommended that both these offices be combined and that one man be placed in charge to perform the duties of both positions. The reports, as recorded in the minutes, are so brief that it is difficult to

CHART No. 22



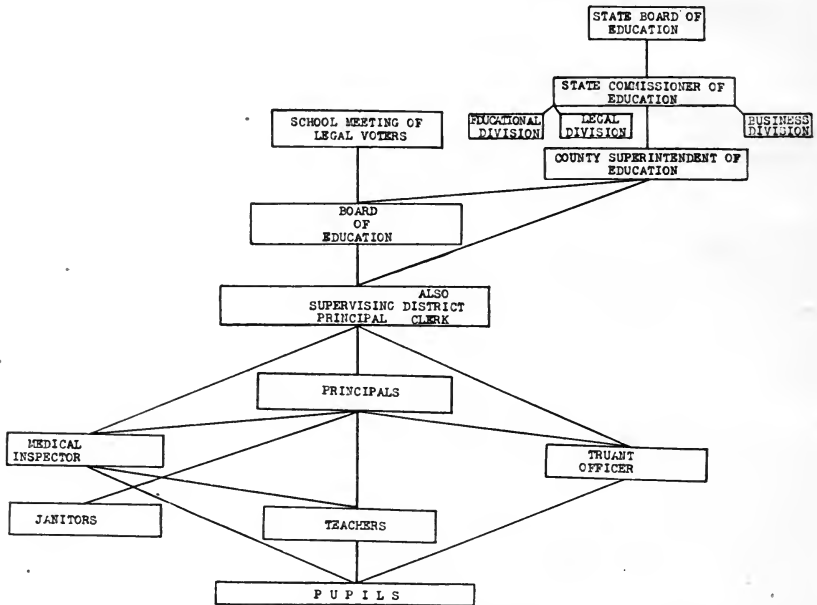
The Present Administrative Organization of the Lawrence Township Schools.

determine of what the reports of the supervising principal, truant officer, medical inspector or chairman of the standing committees actually consist. Reports, giving in detail many of the significant elements included in this study of the township schools, should be required from the supervising principal and other officers from time to time. These reports should be in such detail that the Board of Education may rest assured that the proper progress is being made in the school system. All of the evidence which has been collected in this report tends to the conclusion that no careful analysis has been made of any of the significant problems involved in the development of the

local school system. Had such reports been made, it is very clear that the teachers would not be content with the low ratings attained by the pupils on the tests which had been given.

The Educational Officers There are three administrative officers appointed by the board, a supervising principal, a medical inspector, and a truant officer, who are responsible to the board and co-ordinate in authority. As far as could be ascertained, the present supervising principal has authority primarily in

CHART No. 23



Proposed Relationships in Administrative Organization of Lawrence Township Schools.

the field of supervision. From the nature of the work which the pupils are doing, there is little evidence that this authority is at all being exercised. In a school system which employs only twenty teachers, the supervising principal should also be responsible for all administrative details, including supervision of the janitors. The conditions in the school buildings are such that there is little evidence that any of this responsibility has been assumed by the supervising principal.

TABLE LXI
PER CENT OF LOSS IN POSSIBLE ATTENDANCE

Schools	Years					
	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21
Lawrenceville	20.4	12.2	19.9	4.9	14.6	11.5
Slackwood	16.8	20.2	12.3	14.2	12.9	14.3
Eldridge Park	21.1	16.3	18.6	17.9	21.5	12.7
Rosedale	19.3	9.1	24.8	18.5	22.7	15.
Clarksville	14.6	16.3	25.2	14.9	20.6	9.8

According to the minutes of the Board of Education, it is the custom of the supervising principal to make monthly reports to the board. The following matters were reported by him in the last ten months:—enrolment, average daily attendance, examination grades, overcrowded rooms and minor details. There is no evidence of any comprehensive or continuous program of reporting and no evidence that any modern educational diagnosis had been made. If this type of service cannot be rendered by the supervising principal, it is questionable whether the community gets adequate return for the money expended on supervision.

*Medical Inspection
and Enforcement
of Attendance*

The mere medical inspection of children as it is at present carried out has little value. The work of the truant officer is limited to special services requested by the Board of Education.

The per cent of loss in possible attendance over a period of years is shown in Table LXI. When expressed in dollars and cents which might have been paid to the local school system by the state if children had attended, this loss is considerable. Without doubt, the best policy that could be pursued in Lawrence Township would be the selection of a nurse for the purpose of doing much of the work of medical inspection and also for the purpose of acting as the truant officer. Such a combined service seems most desirable where there are so few children and where both services are at times essential.

*Census
Record*

As aggregate days' attendance is one source of income and as there is no way of checking against the complete enforcement of the attendance laws, except as a permanent census record is maintained, it is highly essential that such a census program be developed. This program can readily be carried out without any

additional aid, providing the supervising principal and teachers cooperate in doing the work.

Janitor Service Until recently, the board employed only one full-time janitor. The janitors at the two smaller grade schools were employed for part time and the one-room teachers received \$25.00 to pay for janitor service. Within the last few weeks, the Eldridge Park School was closed for nine days, thus causing a loss of state money. Teachers were paid for this period and the cost of replacement of heating apparatus was incurred because of the failure to provide proper janitorial service. Better janitorial service, with adequate supervision, must be secured.

Records and Reports The records and reports of the school system should be kept in one of the school buildings. Those that are maintained in Lawrence Township are, as a whole, far below the standard. This refers equally as well to the financial records and the educational records. A very intensive study of individual pupils is possible where one supervising principal has charge of such a small number of children as are found in the Lawrence Township schools. This intensive study requires a most accurate system of recording and reporting. Such a system involves slight expense, but requires time and a knowledge of modern methods in order that good results may be secured. The cost records should be so maintained that costs by schools may become available. With only slight additional labor, costs by grades could also be secured by the accounting officer.

Charts No. 22 and No. 23 show the present and proposed administrative organizations of the local board of education. The proposed organization suggests the elimination of committees, the reduction of the size of the board, the consolidation of the office of the supervising officer and district clerk and the placement of all other officers and employees under the direct supervision of the supervising principal.

PART IX

SUMMARY OF FINDINGS AND RECOMMENDATIONS

- 1—The school system of Lawrence Township is poorly organized and poorly administered. Responsibility is not fixed, nor is efficient service required.
- 2—The teachers of Lawrence Township are well paid, and as a group, their class burdens are not too heavy.
- 3—The small size of the school buildings presents a serious educational handicap because of the necessity of keeping two grades in the same classroom.
- 4—The children of Lawrence Township are intellectually capable, but in their classroom work they are not doing as well as children of similar ages or grades are doing elsewhere. In fact, the results of the achievement tests should arouse both the community and the teaching staff toward betterment of the educational work that is being done.
- 5—A nine year elementary school has been developed without bringing adequate returns.
- 6—The great amount of retardation and the great number of over-age children are serious factors in the elimination of children from schools.
- 7—The township sends a relatively small number of children to high school.
- 8—Children should be encouraged to stay in school much longer than they have been doing.
- 9—For a period of time, it would be cheaper for Lawrence Township to continue to send the upper three years of the high school to Princeton and Trenton, as they have been doing in the past than to plan a separate high school building.
- 10—The recording and reporting system, both financial and educational, fails to conform to modern standards.
- 11—Proper standards of cleanliness are not maintained in the present buildings.
- 12—The school buildings are inadequate to meet present needs as well as totally inadequate to meet any continued growth in the community.

- 13—The community is a growing community, with a rather stable rural population and with the increases taking place in the Slackwood, Eldridge Park and Lawrenceville sections.
- 14—The costs of education in Lawrence Township are not excessive as compared to what other communities are finding it necessary to pay in order to maintain a good school system. Measured in terms of the success at present being attained in the Lawrence Township schools, the costs are, without doubt, excessive.

RECOMMENDATIONS

All members of the community must take a more active interest in the development of the local schools. The Board of Education should become purely a directing body and should give full administrative responsibility to a capable administrative officer.

The program of measurement of achievements should be extended to the point where the Board of Education is being constantly informed regarding the progress children are making.

The children of all of the schools should be reclassified with an effort to reduce the wide variations in grades.

The program of measurement of the intelligence of children, and comparison of achievement with intelligence standards, should be continued.

A new building should be planned in the vicinity of Lawrenceville to take care of grades 1 to 9.

A new building at Bakers Basin should be begun with an initial provision of three classrooms.

A new building must be planned in the Eldridge Park section.

When new buildings are planned, sites of six to ten acres should be chosen.

Changes should be made in the educational organization, eliminating the reception grade, substituting therefor a kindergarten in the larger schools and beginning a junior high school program for the children of the 7th, 8th and 9th years.

Reports should be required of the administrative officer at such intervals as to assure the community that its school system is making the progress which has been found possible in other well organized and administered school systems.

The recommendations made cannot be carried out on the basis of the present appropriations which are being made for education. The proposed new buildings will add to maintenance and operation cost.

In Table LXII are shown estimates of pupil growth and possible cost changes. The indicated increase in total current expense as well as the addition for new buildings are factors to be expected where educational improvement is desired.

TABLE LXII

ESTIMATES OF PUPIL GROWTH AND COST CHANGES

	1920-21	1921-22	1922- 23	1923-24 (with new Building)
Total Expenditures.....	\$51,198	55,030*	57,330	62,980
Total Expenditures within District.....	42,868	44,280	46,080	56,000
Tuition Fees.....	6,342	8,200*	8,600	5,000
Transportation (Tuition Pupils).....	1,987	2,550*	2,650	1,980
Total Elementary Average Daily Attendance	592	615	640	700**
Elementary Pupils sent to other Districts	8	8	8	8
High School Pupils	72	77	82	50
Cost of Elem. Pupils (Aver. Daily Attendance)	72	72	72	80
Cost Per Tuition Pupil (Tuition & Trans.)	104	130	130	130

New Principal and Interest for New Building.....\$6,000 to \$12,000
Total.....\$68,980 to \$74,980

* Estimates

**If the 9th grade is included

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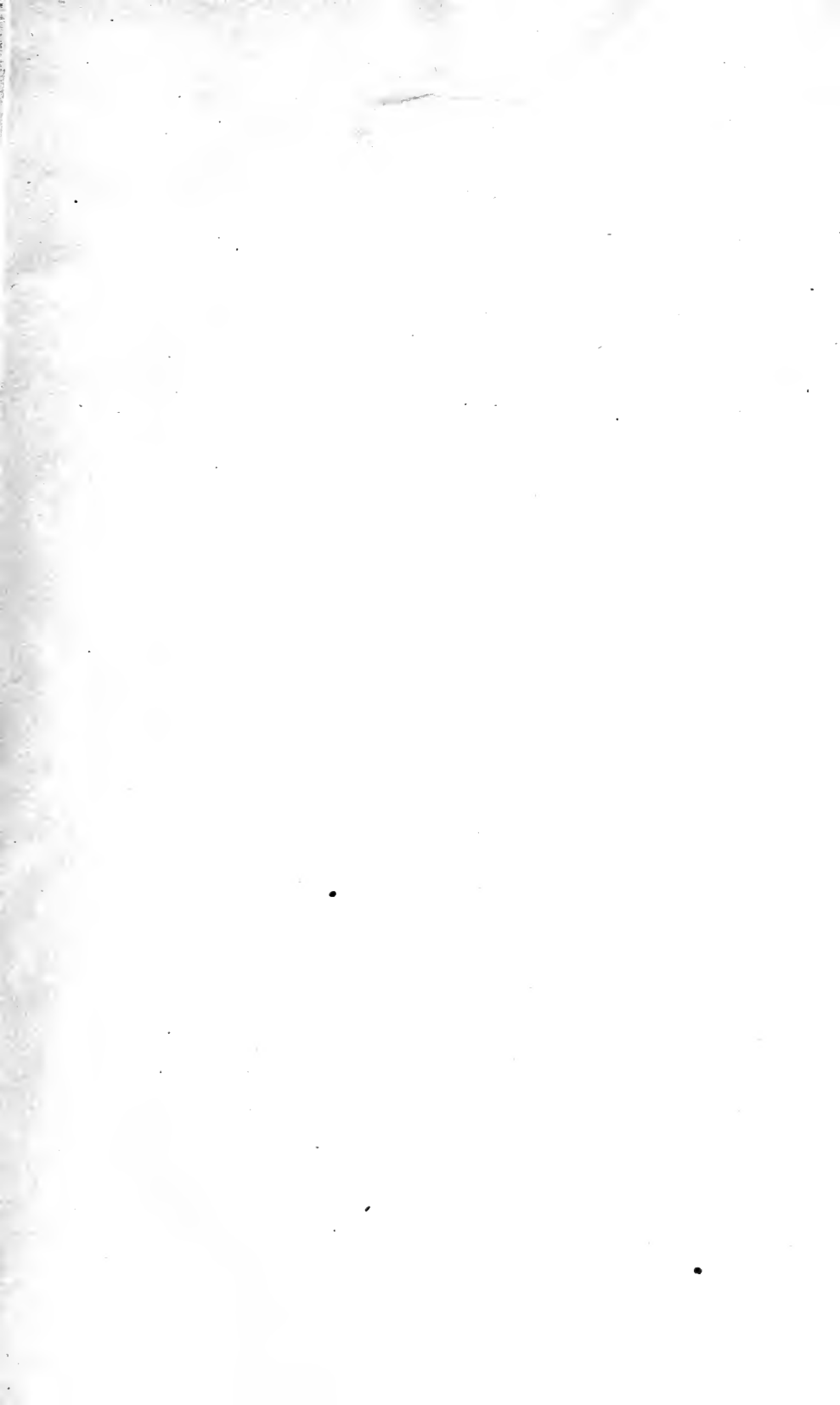
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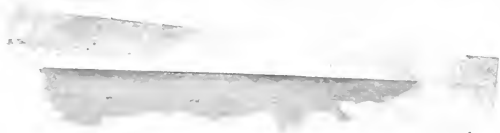
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