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YEAR-ROUND SCHOOLS FOR POLK COUNTY, FLORIDA, A FEASIBILITY STUDY.

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FLORDIA EDUCATIONAL RES. AND DEV. COUNCIL

PUB DATE 66

EDRS PRICE MF-$0.18 HC-$3.00 75P.

DESCRIPTORS- *YEAR ROUND SCHOOLS, SCHOOL SCHEDULES, *TRIMESTER SCHEDULES, *QUARTER SYSTEM, *SUMMER PROGRAMS, EXPENDITURES, TEACHER SALARIES, COSTS, *ACCELERATED PROGRAMS, PUBLIC RELATIONS, PARENT REACTION, BIBLIOGRAPHIES, INSTRUCTIONAL STAFF, GAINESVILLE, POLK COUNTY

TO EVALUATE YEAR-ROUND SCHOOLS, POLK COUNTY, FLORIDA, SCHOOLS REQUESTED A STUDY OF THE LITERATURE ON YEAR-ROUND OPERATION OF PUBLIC SCHOOLS AND A NATIONWIDE SURVEY OF STATE DEPARTMENTS OF EDUCATION. NEW YORK, CALIFORNIA, AND FLORIDA WERE FOUND TO OPERATE SOME SCHOOLS ON A YEAR-ROUND BASIS. THREE OF SEVEN OUTLINED PLANS WERE SELECTED FOR SPECIAL ANALYSIS--REGULAR YEAR PLUS SUMMER ATTENDANCE, STAGGERED FOUR QUARTERS, AND THE TRIMESTER PLAN. UNDER THE QUARTER SYSTEM, A POLK COUNTY ELEMENTARY SCHOOL WOULD REQUIRE A MINIMUM OF 540 PUPILS TO OPERATE AT LOWER COST THAN THE PRESENT SYSTEM ALLOWS BECAUSE INSTRUCTIONAL SALARIES AMOUNT TO 80 PERCENT OF ALL CURRENT EDUCATIONAL EXPENSES IN POLK COUNTY. UNDER THE TRIMESTER SYSTEM, THE ELEMENTARY SCHOOL WOULD REQUIRE A MINIMUM OF 432 PUPILS TO OPERATE WITH A LOWER TOTAL INSTRUCTIONAL SALARIES COST. JUNIOR AND SENIOR HIGH SCHOOLS WOULD REQUIRE MORE TEACHERS AND HIGHER SALARIES FOR BOTH THE QUARTER AND TRIMESTER SYSTEMS BECAUSE THEY MUST OFFER A WIDE RANGE OF SUBJECTS REQUIRING A LARGER PROPORTIONATE TEACHING STAFF THAN ELEMENTARY SCHOOLS. OTHER COST DIFFERENTIALS INCLUDE ADMINISTRATION, PLANT OPERATION, AUXILIARY CHARGES, FIXED CHARGES, AND CAPITAL OUTLAY. SPECIAL PROBLEMS INCLUDE ADMINISTRATION, PLANT MAINTENANCE, TEACHER RECRUITMENT AND RETENTION, CURRICULUM DEVELOPMENT, PUPIL REASSIGNMENT, AND PUBLIC RELATIONS. PUBLIC REACTION FROM 4,210 RESPONDENTS (2,477 PARENTS, 487 TEACHERS, AND 1,246 STUDENTS) FAVORED THE REGULAR SCHOOL YEAR PLUS SUMMER PROGRAM OPERATED WITHOUT COST TO PARENTS BUT WITH ATTENDANCE COMPULSORY FOR STUDENTS NOT PROMOTED AND VOLUNTARY FOR OTHERS. AN EIGHTH PLAN PROVIDING 210 DAYS OF CONTINUOUS STUDY FOR ALL PUPILS IS RECOMMENDED AS THE BEST MEANS OF INCREASING THE EDUCATIONAL QUALITY LEVEL AND OBTAINING THE GREATEST AMOUNT OF EDUCATIONAL RETURN PER DOLLAR INVESTED IN THE PUBLIC SCHOOLS. (JK)

YEAR-ROUND SCHOOLS FOR POLK COUNTY, FLORIDA

A Feasibility Study

FLORIDA EDUCATIONAL RESEARCH AND
DEVELOPMENT COUNCIL

YEAR-ROUND SCHOOLS FOR POLK COUNTY, FLORIDA

A Feasibility Study

Florida Educational Research and Development Council
College of Education, University of Florida
Gainesville, Florida
1966

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FOREWORD

On July 27, 1965 Mr. Shelley Boone, Superintendent of Public Instruction of Polk County, Florida, wrote J. B. White, Executive Secretary of the Florida Educational Research and Development Council, asking if the Council would undertake a feasibility study of year-round schools for Polk County. He suggested that the study would include the following items:

1. A survey of the literature dealing with year-round operations of public schools
2. A study of the attitudes of parents, students, businessmen and industrial leadership, and their willingness to adopt a plan for the year-round operation of schools in Polk County
3. A study of selected schools now operating on a year-round basis
4. An analytical study of the utilization of school facilities in Polk County
5. A study of problems related to the administration of the program of year-round education
6. An analysis of the curricular patterns that would be necessary to implement a year-round program
7. An analysis of the financing that is related to year-round use of public schools
8. A summary and recommendations with regard to the advisability of adopting a year-round plan of operation in Polk County, the type of plan, and an overall approach to the implementation of the plan recommended

A study of this nature would be of general interest to all schools in Florida and the Florida Educational Research and Development Council authorized the Executive Secretary to enter into agreement with the Board of Public Instruction of Polk County to conduct this feasibility study with the understanding that the major cost of the study would be borne by the Board of Public Instruction. However, because of the general nature and interest in such a study, the FERDC and the University of Florida agreed to make contributions to the study in the form of services.

The Staff wishes to express appreciation to 47 State Superintendents of Public Instruction who responded to the nationwide survey seeking to locate schools operating on a year-round basis; and to the 4,210 parents, teachers and secondary students who studied the various plans proposed and provided their reactions to these proposals. Special recognition is extended to Dr. Dale K. Hayes, Chairman of the Department of School Administration, University of Nebraska and to a doctoral student of that University, Mr. Gordon Quick, who were involved in a study of year-round programs for permitting the examination of their materials and data gathering instruments.

J. B. White, Executive Secretary
Florida Educational Research and
Development Council

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Year-Round Schools For Polk County, Florida

A FEASIBILITY STUDY

Recognizing that the traditional nine-month school term grew out of an agrarian society, the Polk County Board of Public Instruction is seeking to find if it is possible and economically feasible to find ways and means of using the school facilities for a longer period of time each year, resulting in an improved educational program and greater economy in operating of the overall school program. Stated in simple terms, will the extension of the school year and an increased use of physical facilities result in economies which could be passed on to the tax payer? Would such a program result in the deterioration or improvement of the curriculum? Would the community support an extended school year of some nature?

The problem under consideration is greater than developing plans exclusively for better utilization of the school plant. It is estimated that the total value of the school plants in Polk County in 1965-66 was approximately 50 million dollars. This plant is only partially used during the summer months, but teachers and pupils have also been idle during the summer months. What is the capitalized value of a teacher? It is conservatively estimated that the individual, family, and social investment in a teacher is at least $60,000. At this figure, the capitalized value of the 1800 teachers in Polk County in 1965-66 was 108 million dollars, more than twice the capitalized value of the school plant. It is impossible to make a rational estimate of the value of the utilized time of pupils during the summer months.

The facts and questions in the foregoing paragraphs emphasize the timeliness and importance of a thorough investigation of the possibilities of a year-round school program.

PROCEDURES

The following criteria were accepted by the staff as guiding principles:

1. Any plan developed for Polk County should provide for a good educational program—one equal to, or superior to,

the present program. The choice of subjects offered students in secondary schools should not be reduced and a teacher per grade in the elementary school should be maintained where it now exists.

2. The program must fall within the limits established by Florida law or the law must be changed by special legislation. Schools must operate at least 180 school days or the equivalent for each child.
3. The program must be acceptable to a majority of the lay and professional people in Polk County.
4. The program cannot be so different that students find it extremely difficult to transfer in and out of the Polk County School System.
5. The year-round school program should lead to greater utilization of school facilities.

Having agreed upon the guidelines, the staff approved the following procedures for collecting data for this study:

1. **Review of the literature**—more than 120 books and periodicals were reviewed to identify experience of other school systems in attempting a year-round school program
2. **Nationwide survey**—fifty state superintendents of public instruction were written to secure names and addresses of schools operating on a year-round basis
3. **Selection of plans which seemed to have possibilities for Polk County**—this was done with the advice and assistance of a combined committee of lay and professional people who examined various plans that appeared in the literature
4. **An analysis by the staff of each plan selected by the joint committee**—this led to the development of a description of seven separate plans
5. **A survey of opinion of parents, teachers, and secondary students**—reactions were secured to the seven plans to be considered
6. **A detailed analysis of the cost of each plan**
7. **An analysis of the administrative and curricula problems of each plant**
8. **Conclusions**

REVIEW OF LITERATURE ON YEAR-ROUND SCHOOLS AND EXTENDED SCHOOL TERMS

Over 120 books and periodicals relating to year-round schools and extended school terms were reviewed. This review revealed that proposals for year-round schools and extended school terms have been under consideration since the beginning of the 20th century. Over the years countless programs with slight variations or combinations have been presented to the public. A number of boards of education have experimented with different kinds of proposals.

It is impossible in a publication of this length to give an exhaustive review of the literature on this subject. In the following paragraphs some insights gained from a study of available literature are presented.

It is difficult to present a systematic classification of all of the different types of proposals of this nature that have been considered since the beginning of the century. The following, however, is a rough classification of the different types of proposals that have been made for year-round schools and extended school terms:

1. **A summer term of a few weeks, usually supported by fees.** This type of summer term is usually for the purpose of giving students an opportunity to make up deficiencies. Sometimes it is used for acceleration or enrichment. It is a voluntary type of plan. It is the most commonly used plan in the United States. Generally this plan is more often made available to high school students than elementary students. While this plan is commonly found throughout the United States, usually only a small percentage of the pupils participate in this plan.

2. **A summer term financed by the board of education.** The most important purpose of this plan is usually to provide enriching experiences for pupils. However, this plan also is used to permit students to make up deficiencies. It is not often used for acceleration. Attendance is voluntary. This type of plan usually includes elementary pupils as well as high school students, and a far higher percentage of students participate in this type of program than a program supported entirely by fees.

3. **The staggered enrollment plans of operation.** Under these plans part of the students will be in school all the time and part on vacation all the time. The most commonly known staggered

plan is the staggered 4-quarter plan. Under this plan the school year is divided into 4 quarters, with 1/4 of the student body on vacation all of the time and 3/4 in school. This is an all-year plan because it utilizes the school plant and school personnel all year. This plan has been tried in the following places: Buffton and Gary, Indiana; Bayonne and Newark, New Jersey; Ambridge and Allquippa, Pennsylvania; Nashville and Chattanooga, Tennessee; Amarillo, Texas; Ardmore and Tulsa, Oklahoma; Minot, North Dakota; Albuquerque, New Mexico; Eveleth, Minnesota; and Mason City, Iowa. This plan has been abandoned after trial in all these places. Parental objection, difficulties of administration, failure to save the anticipated funds, failure to improve the quality of the program, were the reasons usually given for having abandoned the staggered 4-quarter plan.

The plan has been studied since 1950 in the following places: Fairfield, Connecticut; Los Angeles, California; Atlanta, Georgia; San Diego, California; Jacksonville, Florida; Redwood City, California; San Mateo County, California; Sacramento, California; and Dallas and Houston, Texas. None of these systems, after making a study of this plan, has decided to adopt it.

Proposals have also been made for a staggered trimester plan of operation which would be operated in a manner similar to the staggered 4-quarter system. The staff has been unable to find any examples of school systems having tried this plan.

4. **The extended school year plan with no change in curriculum and no acceleration.** The typical school term in the United States is from 175 to 180 days. A number of school systems, however, are operating schools for 190 days and a very few, 200 days. This plan involves no change in curriculum or acceleration. It simply provides more time for pupils to master the material now included in the elementary and secondary curriculum.

5. **The extended school year with a change in curriculum and acceleration.** This plan has numerous variations but it is an all-year plan. This type of plan involves all children attending school, usually a term of 210 to 220 days. It provides the opportunity for enrichment as well as acceleration. There are many variations of plans of this type. Unfortunately extensive experimentation with plans of this type have not been undertaken in the United States at the present time. This plan is

being experimented with at the Nova School in Broward County, Florida, and the University School, Florida State University. However, conclusive findings on these experiments are not yet available. As pointed out elsewhere in this report, the New York State Department of Education is at the present time encouraging extensive experimentation with extended school year plans of different types.

In summary, a review of the literature has revealed that there has been extensive interest in all-year schools and extended school terms since the beginning of the century. This interest is increasing rather than decreasing. The rationality of operating schools for only 175 or 180 days in the United States is now being questioned by lay people as well as professional educators. The lay public has observed idle school plants during the summertime and wondered why these plants were not being utilized for some worthwhile purpose. Professional educators have been greatly concerned about the enforced idleness of teachers in the summertime, and the failure of the community to provide learning experiences for pupils during the three summer months. All of the available evidence indicates that a more economic utilization of our resources can be achieved if we develop plans for better utilization of school plants and school personnel than is the prevailing practice.

NATIONWIDE SURVEY

A questionnaire was mailed to the State Departments of Education in each of the 50 states, asking them to indicate the name and address of the school and principal operating a year-round program. Forty-six states replied. Three of the states, California, Florida, and New York, reported some schools operating on year-round programs. These schools were then written directly for information about the type of program being followed. However, with the exception of the material from New York, the information secured was of little help. New York State has made the greatest effort in an attempt to find a successful plan of year-round school operation. The State Department of Education is encouraging experimentation with five different schools programs. 1. The continuous school year plan. 2. The two semester plus modified summer school plan. 3. The trimester plan. 4. The quadrimester plan, and 5. The extended K to 12 plan. These plans are reported in de-

tail in a brochure issued by the State Department of Education at Albany, New York under the title "Economy and Increased Educational Opportunity Through Extended School Year Programs".

SELECTION OF PLANS FOR INTENSIVE STUDY

Early in the study it became clear that a detailed analysis of every type of year-round school program that had been attempted would be impossible. It was necessary therefore to select a few plans that might have possibilities for Polk County and make an analysis of each of these plans. Consequently, eight different plans that appeared in the literature were described briefly, giving the advantages and disadvantages under each plan. This material was prepared in a small brochure and presented to a selected group of lay and professional people in Polk County for their evaluation. This group of approximately 25 people selected three plans for analysis. These were as follows:

1. Regular Year Plus Summer Attendance
2. Staggered Four Quarters
3. Trimester Plan

As these three basic plans were analysed by the staff many questions arose. Should the summer attendance be voluntary or should it be compulsory for those who had failed to be promoted? Should the quarter plan be staggered or should there be four quarters of continuous study? Similar questions arose about the trimester plan. How could we best profit by the experience which New York State has had in developing a year-round program? These considerations led to the development of seven plans, each different in some basic aspect. These plans described in the following pages became the basis for analysis by the staff and for securing reactions from parents, teachers and students.

Following the description of the seven plans is a copy of the Reaction Sheet on which parents, teachers and pupils gave their reactions to these proposals. These are reported in another section of this study.

Plan I. Continue the Present Program Without Any Change

The present program operates the schools for all children for 180 days with 16 additional planning days for the faculty.

This is according to the Florida School Law. There is a summer session of six weeks in several communities. Attendance at the summer session is voluntary. Students may take courses in science, art, music, drama, physical education, and the like, which are designed to broaden the background and educational experience. A limited number of courses in academic subjects are offered on a tuition basis. The tuition cost is $30 per summer. Last year, 23,262 children were registered in the enrichment program and 1,164 in the academic program. Teachers for the courses in art, music, physical education and so forth are paid from state funds allocated for that purpose. Teachers in the academic subjects are paid from the tuition collected from parents.

Plan II. The Present Program Plus a Summer Program Operated Without Cost to Parents—Voluntary Attendance

This program is the same as Plan I with a regular school year of 180 days and 16 planning days for the faculty. The difference is that the summer program would be operated for 35 days with the entire cost being paid by the School Board. The summer program would be available to all pupils for the following purposes:

1. To make up a subject or subjects that had been failed during the academic year.

2. To take a new subject or subjects for the purpose of graduating earlier.

3. To take courses for enrichment purposes such as art, science, math, music, drama, and the like.

Students in the secondary school may earn one and one-half units in academic subjects. The program for elementary students would be organized around special needs, such as reading, mathematics, science, and the like. This would make it possible for many students who had failed during the year to remove these deficiencies so that promotion could be earned at the end of the summer session. Attendance at this program would be voluntary but many students would have the opportunity to earn promotion or reduce the time required for graduation. There will be some immediate increase in cost; but over a period of years, the cost will be offset by savings in cost of reteaching students who had not been promoted.

Plan III. The Present Program Plus a Summer Program Operated Without Cost to Parents but With Compulsory Attendance for Students Who Are Not Promoted and Voluntary Attendance for Others.

Plan III is different from Plan II only in one respect. The Board of Public Instruction would require all students who failed to earn promotion the previous year to attend the summer session (unless excused by the principal). In 1964-65, 2,994 students in Polk County were not promoted. The cost of reteaching this number was $1,086,403. The cost of reteaching this number in the summer session would be approximately $217,281. These figures are based on a theoretical assumption that all failures could be made up. The actual savings would be somewhat less than the figures indicated above. However, if as many as 2,000 of the approximately 3,000 who failed were promoted, the savings to the taxpayer would be considerable, both in operating expense and in classrooms needed for reteaching this number. This plan would also carry with it the enrichment program during the summer session, together with the opportunity for students to move more rapidly toward graduation.

Plan IV. A Staggered Four-Quarter System Requiring One-Fourth of the Pupils to be on Vacation Each Quarter

The calendar year would be divided into four quarters of 12 weeks each. Students would be expected to attend school three quarters during each calendar year. This means that the school authorities would assign the students so that 25 percent of the students would be on vacation during each quarter and 75 percent would be in school. To illustrate, one quarter might begin on September 5 and end on November 25. Seventy-five percent of the children would be in school during this period and 25 percent on vacation. The second quarter would begin on November 28 and end on March 3. Again 75 percent would be in school and another 25 percent on vacation. The third quarter would begin on March 6 and end on May 26. Here another 25 percent would be on vacation. And the fourth quarter would begin on May 29 and end on August 18. At this time the last 25 percent of enrollment would be on vacation and the others would be in school.

For the plan to be successful, the enrollment in each quarter would have to be approximately the same. However the schools would be expected to offer the same choice of subjects each quarter. Consequently the number of teachers required would be increased slightly but the size of classes in many instances would be substantially smaller. Unless a secondary school had an enrollment of more than 2,400 students there would be little or no savings in the number of teachers employed. Teachers would have to be employed on a 12-month basis, thus increasing the cost for teachers' salaries by 20 percent. Teachers in Polk County are currently paid on a 10-month basis.

In the elementary schools a saving in the number of teachers employed would be possible for schools with more than 18 teachers. Schools employing fewer than 18 teachers would be required to increase the number if they follow the quarter system. Currently Polk County has 11 elementary schools which employ 18 or more teachers. These schools could operate with fewer teachers. However there are 55 schools which employ 17 teachers or fewer, and these schools would have to increase the number of teachers. There would be no substantial saving in teachers' salaries or operating expenses. Neither would there be a savings in building cost.

Plan V. Four Quarters of Continuous Study. Makes Possible Graduation From Elementary School One Year Earlier and Graduation from Secondary School One Year Earlier

Under this plan the school year would be divided into four quarters of 11 weeks each and all students would be expected to attend all four quarters. This would keep the students in school for 44 weeks each year with a two-week Christmas vacation and a six-week summer vacation. Thus an elementary child would attend school 1100 days during five years compared with 1080 days he attends now during six years. This would mean that the six grades could be completed in five years, which would result in a saving of approximately 16 percent in the elementary building space required. The operational cost would be approximately the same because teachers and other service personnel would have to be on duty 11 months of each year.

In a similar way secondary students could complete the junior and senior high school programs in five years instead of six.

This would also result in a saving of approximately 16 percent in high school building cost.

Such a plan could reduce the calendar years required to complete the public school program from 12 years to 10. This would result in students entering college or the labor market two years earlier than at present. However, to offset this early graduation, it would be possible to change the age of entering school from six years to seven. In which case the students would graduate from secondary school only one year younger than at present. Should such a plan be adopted it would be five years before any savings in building costs would be realized.

Plan VI. The Trimester Plan—Two-Thirds of the Students in School and One-Third on Vacation Each Trimester

The school year would be divided into three trimesters of 75 days each. All students would attend school for two trimesters each year and be on vacation for one trimester. To illustrate, if the trimester began in 1966 on September 5 it would end on December 16. Two-thirds of the children would be in school and one-third on vacation. The second trimester would begin on January 2 and end on April 14. Again two-thirds would be in school and another third on vacation. The third trimester would begin on April 17 and end on July 28. During this period the last third would be on vacation and the other two-thirds would be in school.

To make up for the shortened number of days, class periods would be changed from 50 to 60 minutes with five minutes added for time to change classes. Thus a six-period school day would require 7½ hours beginning typically at 8:30 and ending at 4:00. If the number of periods in the day were reduced to five, the school day could be shortened by 65 minutes. Under this plan, teachers would be paid for 12 months, using the 4 weeks in August for vacation and planning.

If the secondary schools continue the current course offerings, each trimester would require a slight increase in the number of teachers employed in most of the junior and senior high schools. In only three schools would the number of teachers be reduced. Thus the overall cost for teachers' salaries under this plan would be increased in the secondary schools. There would be no savings in buildings because it would be necessary to have a classroom for each teacher employed. However, as in

the quarter system, the size of classes in many instances would be substantially smaller.

In the elementary schools it would be necessary for a school to employ more than 12 teachers to realize a saving in the number of teachers employed. In Polk County there are 40 elementary schools which employ 13 or more teachers. These schools would experience a slight saving in the number of teachers employed. There are 26 schools which employ 12 or fewer teachers. These schools would experience an increase in the number of teachers employed.

Taking the county as a whole, there would be little or no saving in teachers' salaries or operating expenses under this plan.

Plan VII. Three Trimesters of Continuous Study Providing for Students to Graduate One Year Early in Elementary School and One Year Early in Secondary School

Under this plan, the school year would be divided into three trimesters of 15 weeks or 75 days each. This plan would keep the pupils in school for a total of 45 weeks each year with a two-week Christmas vacation and a five-week summer vacation. This program is similar to the four quarters of continuous study in that an elementary pupil could complete the six grades in five calendar years. And the secondary pupils could complete the junior and senior high school in five calendar years. The length of the school day would be approximately what it is now. A pupil would attend school 1125 days during the five years compared with 1080 days he attends now in six years. Operational costs would be approximately the same because teachers and other service personnel would have to be on duty 11 months of each year. Savings in building cost would be approximately 16 percent over a long period. The saving would not be realized until the sixth year of this plan.

As in the four quarters of continuous study, a student would graduate two years younger. This could be offset by changing the age of entering school from six to seven years.

REACTION SHEET

After you have carefully studied the seven plans, please check below the one plan which you feel would be best for Polk County.

—— PLAN I Present Program Without Any Change

—— PLAN II The Present Program Plus a Summer Program Operated Without Cost to Parents—Voluntary Attendance

—— PLAN III The Present Program Plus a Summer Program Operated Without Cost to Parents but With Compulsory Attendance for Students Who Were Not Promoted and Voluntary Attendance for Others

—— PLAN IV A Staggered Four-Quarter System Requiring One-Fourth of the Pupils to be on Vacation Each Quarter

—— PLAN V Four Quarters of Continuous Study. Makes Possible Graduation from Elementary School One Year Earlier and Graduation from Secondary School One Year Earlier

—— PLAN VI The Trimester Plan. Two-Thirds of the Students in School and One-Third on Vacation Each Trimester

—— PLAN VII Three Trimesters of Continuous Study Providing for Students to Graduate One Year Early in Elementary School and One Year Early in Secondary School

2. Please explain why you have chosen the plan above.
3. What modifications would you suggest in the plan of your choice?
4. General Comments
5. Check the following — I am a:

   A. Parent: Mother—— Father—— with a child (or children) in Elementary—— Junior High—— Senior High——

   B. Teacher: In Elementary—— Junior High—— Senior High——

   C. Student: Junior High—— Senior High——

   D. Principal: Elementary—— Junior High—— Senior High——

ESTIMATES OF THE FINANCIAL REQUIREMENTS FOR DIFFERENT PLANS OF SCHOOL OPERATION

Assuming quality and breadth of educational opportunity are held constant, the cost of education is primarily a function of: (a) variations in the total number of pupils to be educated during any one year, and (b) variations in the pupil-teacher ratio up to the maximum number of pupils which a teacher can teach without a loss in the quality of education. Costs include expenditures for current expenses plus expenditures for capital outlay from revenue receipts and debt service on indebtedness incurred for capital outlay expenditures.

It is obvious that a reduction in the total number of pupils to be educated during any one year would result in a reduction of current expenses. It would also result in a reduction of capital outlay needs. It would seem, however, that the total number of pupils to be educated is a factor over which the board of public instruction would have no control because the board would have to admit to the public schools all pupils of school age who desire to attend. But if a board of education would extend the school term sufficiently to enable pupils to complete 12 years of schooling in 11 years, it could theoretically reduce its enrollment during any one year by 1/12. Such a plan is now under consideration in the State of New York.

Approximately 80% of all current expenses in Polk County are allocated to instructional salaries. This is in line with average practice in the State of Florida. Therefore any change in the number of instructional personnel employed will have an immediate and powerful effect on school costs. The total number of teachers utilized for a given enrollment of pupils in a school system is determined by the pupil-teacher ratio policy established by the board or the pupil-teacher ratio resulting from the board's policies with respect to size of schools operated or resulting from factors beyond the control of the board (such as school population sparsity) which could compel the board to operate schools of inefficient size. As will be pointed out below, major economies of scale can be attained by operating only schools with large enrollments but these economies of scale cannot always be attained because of the scatter of the school population or because of the cost of abandoning many useful

small buildings and constructing larger buildings to replace them.

It will also be demonstrated that the possibilities for economies of scale (increase in efficiency resulting from increases in size or volume of operations) are reduced by any scheme for operating schools which does not provide for all of the pupils attending school during all of the days school is in session.

Estimating School Expenditures for Different Plans of School Operation

It is impossible to make accurate dollar estimates of school expenditures for the different plans of school operation discussed in this monograph. Such factors as increases in school enrollment, the declining purchasing power of the dollar, increases in salary given by the board to teachers and other employees in future years, changes in the school curriculum and other factors will all affect future school expenditures. It is impossible to make accurate estimates of the effect on school expenditures of all of these factors. However, it is possible to make reasonably accurate estimates of school expenditures if it is assumed that all of these factors will have an equal effect on all of the different operational plans under consideration. While this assumption may not be completely accurate, it is not so far out of line with reality as to substantially affect the validity of the estimates. Using this assumption, it is possible to derive estimates of the percent variations from the present plan of school operation of school expenditures for the different operational plans.

Distribution of School Expenditures

Different plans of school operation will have variable effects on different functions of school expenditures. Therefore it is necessary to determine the percent allocation in the Polk County school system for each major expenditure function. Fortunately the percent allocation of expenditures for different functions of school expenditure vary but little from year to year. This is particularly true of current expenses and it is possible to compute capital outlay costs in such a manner as to avoid inflated reports of capital expenditures for a given year. Therefore, the school expenditures of Polk County for any relatively recent year are satisfactory to use for the determination of the functional breakdown of expenditures. It was decided to use the

fiscal year 1963-64 for determining the percent allocations for the different functions of educational expenditure in Polk County. This decision was made for the following reasons: (a) carefully checked data are available in the published report of the State Superintendent of Public Instruction not only for Polk County but for all other school systems in the state, (b) financial data for 1965-66 were not complete at the time this study was made.

Table 1 shows the total net public school expenditures of Polk County and the State of Florida for the 1963-64 fiscal year. Expenditure functions numbered 1-6 (current expenses) were taken directly from the Biennial Report. The six functions of current expense are classified according to the most commonly used method of educational expenditure accounting. Expenditure function number 7 was obtained by adding the following:

TABLE 1

SCHOOL EXPENDITURES BY FUNCTION
POLK COUNTY AND THE STATE OF FLORIDA, 1963-64*

Function	Polk County		State of Florida	
	Amount	Per Cent	Amount	Per Cent
1. Administration	$ 248,086	1.4	$ 8,562,191	1.8
2. Instruction	13,667,358	77.2	332,904,513	70.9
3. Operation of Plant	851,539	4.8	28,746,084	6.1
4. Maintenance of Plant	432,081	2.4	12,864,274	2.7
5. Auxiliary Services	498,579	2.8	12,738,598	2.7
6. Fixed Charges	161,166	.9	6,666,801	1.4
7. Capital Outlay from Revenue Receipts plus Debt Service on Funds Borrowed for Capital Outlay	1,856,971	10.5	67,696,930	14.4
Total Net Expenditures	$ 17,715,780	100.0%	$470,179,391	100.0%

* Basic data taken from the Biennial Report of the State Superintendent of Public Instruction for 1962-64.

debt service on indebtedness incurred for capital outlay, capital outlay expenditures from maintenance and operation funds which are practically all provided from revenue receipts and capital outlay expenditures from the revenue receipts deposited in the bond construction fund. It is necessary to use this method of

analysis in order to avoid inflation in expenditure reporting.[1] The State Superintendent's Biennial Report lists annually capital outlay expenditures from borrowed funds as well as capital outlay expenditures from revenue receipts and also expenditures for debt service on funds borrowed for capital outlay purposes. For example, let us assume that a school system issues $10,000,000 of bonds and spends the proceeds for capital outlay. Let us assume that the bonds mature serially over a 20-year period. When the proceeds of the bond issue are expended, it is reported as a capital outlay expenditure. As the bonds are retired, the payments are reported as expenditures for debt service. Therefore, over a 20-year period, expenditures of $20,000,000 plus interest costs are reported. Actually $10,000,000 plus interest costs were the only expenditures incurred for capital outlay as a result of this bond issue. The method of expenditure analysis used in this study shows true net expenditures by eliminating duplication in financial reporting.

It is noted from Table 1 that expenditures for instruction are by far the most important function of educational expenditure. In Polk County, 77.2 percent of all expenditures were for instructional purpose in 1963-64. The next most important function of expenditure was capital outlay and debt service on funds borrowed for capital outlay which comprised 10.5 percent of net expenditures.

The allocation of expenditures by function for the State of Florida was similar to the allocation in Polk County with the exception of expenditures for instruction and capital outlay. For the State of Florida, 70.9 percent of all expenditures were allocated to instruction and 14.4 percent to capital outlay in 1963-64.

Table 2 shows the percent of net expenditures allocated to capital outlay in Polk County and in Florida for a four year period. This Table shows that the percent of expenditures allocated to capital outlay has been declining both in Polk County and in the State at large. However the decline has been much more rapid in Polk County. School enrollments have not been increasing as rapidly in Polk County and in the State of Florida during the past few years as formerly.

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[1] See Roe L. Johns and Edgar Morphet, *Financing the Public Schools*, Englewood Cliffs, N. J. Prentice-Hall, Inc., 1960, Page 473.

TABLE 2

PERCENT THAT CAPITAL OUTLAY EXPENDITURES FROM REVENUE RECEIPTS PLUS DEBT SERVICE ON FUNDS BORROWED FOR CAPITAL OUTLAY WAS OF TOTAL NET EXPENDITURES
1960-61 TO 1963-64

Year	Polk County	Florida
1960-61	17.1	16.5
1961-62	23.4	15.0
1962-63	13.8	15.4
1963-64	10.5	14.4

It is quite probable that the current expenses of schools in Polk County will increase in the future at a greater percentage rate than expenditures for capital outlay. However, the 1965 School Plant Survey of Polk County made by the State Department of Education revealed a considerable accumulation of school plant needs. In view of this fact, it does not seem reasonable to anticipate that the percent of expenditures allocated to capital outlay in Polk County will continue to decline. The estimates developed later in this report are based on the assumption that the percent of expenditures allocated to each function will not change radically in the near future and therefore the percent allocations for each expenditure function in Polk County presented in Table 1 are utilized in making the estimates.

Estimated Teachers Required For Three Different Operational Plans

As already pointed out, the number of teachers employed to teach a given number of pupils is a vital factor affecting school costs. There has been considerable interest in recent years in extended school terms and year-around school operation. In order to make reasonable estimates of school costs under alternate plans, it is necessary first to determine the number of teachers required to operate each plan.

It has been proposed that the calendar year be divided into quarters, that each pupil attend three quarters but that one-fourth of the pupils be on vacation all of the time and three-fourths in school. It has also been suggested that the year be divided into trimesters of four months each and that one-third of the pupils be on vacation all of the time and two-thirds in school.

Tables 3 and 4 show the estimated number of teachers that would have been required to operate the Polk County schools in 1965-66 under the quarter and trimester systems. These estimates were based on the assumption that the quarter and trimester systems would be operated in such a manner as not to result in a reduction in the quality of education or the breadth of educational opportunity provided. This means that the estimates of teachers required for the quarter and trimester systems are based on the assumption that the pupil-teacher ratio would not be increased beyond the present ratio, that the same courses would be made available to the pupils enrolled in the junior and senior high schools as are now provided, that approximately the same number of hours of schooling would be provided and that if a teacher per grade is provided in an elementary school at the present time, that it would also be provided under the quarter and trimester plans of operation.

Table 3 shows that in 1965-66 that 910½ teachers were employed in the elementary schools under the present plan of operation. This number excludes 22 teachers now teaching in five small schools scheduled for consolidation and a few teachers of classes for exceptional children with very small enrollments.

It would have required 1079 teachers in 1965-66 to teach the elementary pupils under the year-around quarter system. This is 168½ more than the number utilized under the present system. This seems impossible because advocates of the four quarter system have claimed that since ¼ of the children would be on vacation all of the time and only ¾ of the enrollment in school at any one time, that only ¾ as many teachers would be required to operate the four quarter system. Let us examine this claim assuming that the quality of the program is held constant. First let us take a small six teacher school with an enrollment of 180 and a teacher per grade as an example. It has a pupil-teacher ratio of 30 to 1. Under the year-around quarter system, this school would be divided into four sections of 45 pupils each with each section starting school in a different quarter. Since each group of pupils enters school at a different time, separate classes will have to be provided for each group. Since there will be three sections in school at any one given time and since each section must provide all six grades if quality is held constant, six teachers would be required for each section making a total of 18 teachers. This would be a teacher-pupil ratio of 7.5 to 1. Obviously, this would not be practicable.

TABLE 3

ELEMENTARY TEACHERS REQUIRED UNDER PRESENT SYSTEM, QUARTER SYSTEM WITH ONE-FOURTH ENROLLMENT ON VACATION, AND TRIMESTER SYSTEM WITH ONE-THIRD ON VACATION*

School	Total Enroll.†	No. Teachers Present System†	No. Teachers Quarter System	No. Teachers Trimester System
1. Central Ave.	376	15	18	12
2. Cleveland Ct.	449	15	18	12
3. Combee	806	23	19	18
4. Cox, John F.	373	15	18	12
5. Crystal Lake El.	739	24	18	17
6. Dixieland	420	16	18	12
7. Lime St.	649	21	18	14
8. Lincoln Ave.	915	29	23	21
9. Medulla	360	13	18	12
10. No. Lakeland	361	12	18	12
11. Palmore, Carlton	551	16⅔	18	12
12. Rochelle Elem.	877	29	19	18
13. Southwest Elem.	439	13	18	12
14. Webster Ave.	219	8	18	12
15. Alta Vista	277	10	18	12
16. Bethune	1112	36	30	27
17. Central Elem.	333	12	18	12
18. Davenport	400	13	18	12
19. Dundee	208	6	18	12
20. Eastside	355	12	18	12
21. Brigham, F. E.	1111	35	29	23
22. Eagle Lake	388	13½	18	12
23. Elbert	354	12½	18	12
24. Garner, F. G.	641	23	18	16
25. Inwood	369	13	18	12
26. Jewett Primary	475	15	18	12
27. Jewett Elem.	474	14½	18	12
28. Lake Alfred Elem.	355	10½	15	10
29. Lake Shipp	531	16	18	12
30. Snively, J. A.	377	11½	18	12
31. Wahneta	439	13½	18	12
32. Lewis	410	15	18	12
33. Riverside	158	5½	18	12
34. Woodbury, Anna Elem.-Jr.-Hi.	251	8	18	12
35. Auburndale Cent.	536	15	18	12
36. Caldwell, Walter	388	12	18	12
37. Lena Vista	679	19	18	16
38. Polk City	144	5	14	12
39. Alteras	175	6	18	12
40. Bartow Elem.	860	28	21	21
41. Floral Ave.	726	24	18	18
42. Gibbons St.	367	13	18	12
43. Highland City	469	16	18	12
44. Union Academy El.	550	18	18	14
45. Kingsford	346	12	18	12
46. Lee, J. R. E.	492	16	18	12
47. Mulberry Elem.	414	15	18	12
48. Griffin	361	12	18	12

TABLE 3—Continued

School	Total Enroll.†	No. Teachers Present System†	No. Teachers Quarter System	No. Teachers Trimester System
49. Kathleen Elem.	465	15	18	12
50. Keen, Jesse	379	13	18	12
51. Padgett, Ed. L.	411	12	18	12
52. Winston	748	22	18	18
53. Frostproof Elem.	497	17	18	12
54. Babson Park	115	3⅓	9	9
55. Hillcrest	577	17½	18	12
56. Polk Ave.	421	15½	18	12
57. Roosevelt Elem.-Jr.-Sr.	425	13	18	12
58. Spook Hill	317	11½	18	12
59. Wilson, Janie H.	549	14½	18	12
Totals	27,963	910½	1079	788

*This table excludes the following small elementary schools which have been recommended for consolidation by the 1965 State Department of Education survey: Medulla West Side, Myrtle Street, Fruitland Park, Bridgers Ave., and Ralph J. Bunche. These five schools have a total enrollment of only 698 and employ 22 teachers. To have included these small schools scheduled for consolidation in this table would have overstated the estimated number of teachers required to staff the schools on the quarter and trimester bases.

The enrollment and teachers of classes for exceptional children are also excluded from this table. Since the pupil-teacher ratio for these classes is already very low, it is assumed that these children will be concentrated in the same quarters or trimesters and therefore require no additional teachers under different systems. To have included these children in this table would have overstated the number of teachers required to staff the schools under the quarter and trimester systems.

† Data furnished by the Office of the Board of Public Instruction of Polk County for the first few months of the 1965-66 school year.

What size of school under the quarter system would be necessary before economy of scale would make it possible to break even on instructional costs? A school would have to have an enrollment of 540 or more to operate with the same number of teachers or less under the quarter system as under the present system. A school of 540 would have 18 teachers under the present system if a pupil-teacher ratio of 30 to 1 is maintained. But that school would still need to have 18 teachers under the quarter system if it had a teacher for each grade because it would have three sections of six teachers each. But teachers would have to be paid 20% more salary under the quarter system than under the present system because they would be employed for 12 months under the quarter system as compared

with present employment of 10 months. A school would have to have an enrollment of 648 pupils in order to break even on teacher salary costs in a change to the quarter system. This is computed as follows: Assume that teachers are paid an average salary of $6,000 on the present ten months salary basis and 20% more, or $7,200, on the quarter basis. It would require 21.6 teachers employed on a ten-months basis to teach 648 pupils and maintain a pupil-teacher ratio of 30 to 1. At $6,000 per teacher the total for teachers' salaries would be $129,600. It would require a minimum of 18 teachers to staff this school on the quarter basis. This would be a pupil-teacher ratio of 27 to 1. At $7,200 per teacher the total for teachers' salaries would be $129,600.[2]

Table 3 shows that only 11 of the 59 elementary schools listed in this table had an enrollment of 648 and above at the beginning of the 1965-66 school year. As already pointed out, this table does not include 5 small elementary schools recommended for consolidation by the 1965 State Department of Education Survey. There are 48 elementary schools in addition to these 5 schools that are too small to make possible economies of scale under the quarter system. At least 24 additional elementary school plants would have to be abandoned and the pupils transferred to other schools. This would require a major increase in capital outlay expenditures. It would also permanently increase transportation costs. Furthermore, the homes of pupils may be so located over the County that consolidation of this magnitude might require children to ride excessive distances on school buses.

The total number of elementary teachers employed would have to be reduced to 758.8 under either the quarter or trimester systems in order to reach the break-even point in teachers' salaries. This would involve a reduction of 151.7 elementary teachers employed. This would not be possible under the quarter system without excessive transportation.

Let us now examine the feasibility of the trimester system. Table 3 shows that the elementary schools could be staffed with 788 teachers under the trimester system with no more consolidation than that recommended by the State Survey. This is

[2] In a school system that pays its teachers on a nine-months' salary basis, the break-even point on teachers' salaries would be a minimum enrollment of 720 pupils because a 25% reduction in the number of teachers employed would be accomplished by a 33⅓% increase in the salaries of the teachers retained.

122.5 less teachers than the number utilized under the present system. Assuming that teachers under the present system are paid an average salary of $6,000, the total for elementary teachers' salaries would be $6,000 times 910.5 or $5,463,000. Under the trimester system these same teachers would be paid an average salary of $7,200. Under the trimester system, the total for elementary teachers' salaries would be $5,673,000. Therefore, there would have to be some additional consolidation under the trimester system in order to reach the break-even point on teachers' salaries. The break-even point on teachers' salaries under the trimester system assuming a pupil-teacher ratio of 30 pupils enrolled per teacher under the present system, would be a school with an enrollment of 432 pupils. There are 32 elementary schools listed in Table 3 that had an enrollment of less than 432 at the beginning of the 1965-66 school year. At least one-third of these schools would have to be consolidated in order to attain schools with a minimum enrollment of 432. This might be feasible for the elementary schools. Attention is directed to the fact, however, that the substitution of the trimester system for the present system might result in a reduction in the quality of the educational program. As already pointed out, the trimester system assumes that an eight-months school term with a longer school day and a four-month vacation can be substituted for a nine-month school term with a shorter school day and a three-month vacation without loss of quality. This is highly questionable because more forgetting takes place in four months than three and it is doubtful that pupils can learn as much in eight months with a longer school day as they can under the present system.

No allowance has been made in this estimate for the longer teaching day required of the elementary teacher under the trimester system. In order to provide equivalency of teaching under the trimester system, it would probably be necessary to provide the elementary teachers with teacher aides or reduce the pupil-teacher ratio below that estimated for the trimester system in Table 3.

Table 4 sets forth the teachers employed in the junior and senior high schools of Polk County for 1965-66 and the estimated number of teachers required to staff these schools under the quarter and trimester systems. High schools must be much larger than elementary schools in order to attain economies of scale. This is due to the necessity of offering a wide range of

subjects in high schools in order to meet the widely varying needs of pupils. This is especially true of senior high schools.

TABLE 4

JR.-SR. HIGH SCHOOL TEACHERS REQUIRED UNDER PRESENT SYSTEM, QUARTER SYSTEM WITH ONE-FOURTH ENROLLMENT ON VACATION, TRIMESTER SYSTEM WITH ONE-THIRD ON VACATION

	Total Enroll.†	No. Teachers Present System†	No. Teachers Quarter System	No. Teachers Trimester System
Area No. 1				
Crystal Lake Jr.	643	27.8	27.8	27.3
Lakeland Sr.	1894	72.6	79.8	75.0
Lakeland Jr.	1010	44.6	42.8	41.0
Rochelle Jr.-Sr.	1130	45.2	44.6	45.0
Southwest Jr.	1102	46.4	39.6	41.0
TOTALS - Area No. 1	5779	236.6	234.6	229.3
Area No. 2				
Haines City Sr.	499	20.0	28.8	25.3
Haines City Jr.	689	26.2	21.8	23.5
Oakland Jr.-Sr.	570	20.4	21.6	25.0
TOTALS - Area No. 2	1758	66.6	72.2	73.8
Area No. 3				
Denison Jr.	1043	37.2	31.2	31.5
Jewett Jr.-Sr.	775	33.4	43.8	40.5
Lake Alfred Jr.	195	8.6	13.2	11.0
Westwood Jr.	848	33.0	32.4	32.5
Winter Haven Sr.	1593	56.8	63.0	62.0
TOTALS - Area No. 3	4454	169.0	183.6	177.5
Area No. 4				
Ft. Meade Jr.-Sr.	557	23.4	31.8	26.5
Anna Woodbury Jr.	101	4.4	9.6	8.0
TOTALS - Area No. 4	658	27.8	41.4	34.5
Area No. 6				
Auburndale Sr.	548	19.4	27.0	24.5
Auburndale Jr.	760	26.4	24.6	28.0
Bridgers Ave. Jr.	97	4.0	10.2	9.0
TOTALS - Area No. 6	1405	49.8	61.8	61.5

TABLE 4—Continued

	Total Enroll.†	No. Teachers Present System	No. Teachers Quarter System	No. Teachers Trimester System
Area No. 7				
Bartow Sr.	695	27.2	30.6	27.5
Bartow Jr.	914	36.2	37.2	33.0
Un. Ac. Jr.-Sr.	711	29.0	33.0	33.5
TOTALS - Area No. 7....	2320	92.4	100.8	94.0
Area No. 13				
J. R. E. Lee Jr.	212	11.2	10.2	9.0
Mulberry Jr.-Sr.	642	25.2	31.2	32.5
TOTALS - Area No. 13..	854	36.4	41.4	41.5
Area No. 16				
Kathleen Sr.	927	37.0	42.6	37.5
Kathleen Jr.	1114	41.2	34.8	36.0
TOTALS - Area No. 16..	2041	78.2	77.4	73.5
Area No. 22				
Ralph J. Bunche	50	2.0	6.0	4.0
Frostproof Jr.-Sr.	385	20.0	16.2	13.5
TOTALS - Area No. 22..	435	22.0	22.2	17.5
Area No. 53				
Lake Wales Sr.	758	29.2	31.2	31.0
Lake Wales Jr.	491	20.6	17.4	17.0
Roosevelt Jr.-Sr.	624	22.6	28.2	30.0
TOTALS - Area No. 53..	1873	72.4	76.8	78.0
Vocational School, Bartow	?	2.0	6.0	4.0
GRAND TOTAL	21,577	853.2	918.2*	885.0*

† Data furnished by the Office of the Board of Public Instruction of Polk County for the first few months of the 1965-66 school year.

* The estimated number of teachers required under the quarter system could be reduced to 898.2 and the number required under the trimester system could be reduced to 872.0 if the following small schools were consolidated: Lake Alfred Junior, Anna Woodbury Junior, Bridgers Avenue Junior, and Ralph J. Bunche.

It is noted from Table 4 that it would require 918.2 teachers to staff the junior and senior high school under the quarter system, 885 under the trimester system, and 853.2 under the present system. All of the junior and senior high schools in Polk County are listed in this table including those that might reasonably be consolidated. Let us assume that Lake Alfred Junior, Anna Woodbury Junior, Bridgers Ave. Junior, and Ralph J. Bunche are consolidated with other schools. This would reduce the number of teachers required under the quarter system by approximately 20, leaving a net of 898.2, and the number of teachers required under the semester system by approximately 13 leaving a net of 872.0.

The estimates of teaching staff needed under the quarter and trimester systems are based on the assumption that the same courses will be available to the pupils as are available under the present system.

The estimate of teachers required under the trimester system assumes four teaching periods per day for each teacher as compared with five periods per day under the present system. This is necessary because the teaching period would necessarily be longer under the trimester plan because of the necessity of extending the class period in order to make up for the shorter school term.

It will be noted from Table 4, that all senior high schools would require more teachers to operate under the quarter system than under the present system. The same thing is true of the trimester system but to a less extent. Lakeland, the largest senior high school, with an enrollment of 1894 would require 7 more teachers to operate under the quarter system than under the present system. The larger high schools offer broader programs. It would probably require a high school with an enrollment of at least 4,000 in order to attain economies of scale under the quarter system without sacrificing breadth of program.

The number of teachers employed in the junior and senior high schools would have to be reduced to 711 as compared with 853.2 presently employed in order to reach the break-even point on teachers salaries under either the quarter system or the trimester system. The junior and senior high schools are scattered so widely over the county that sufficient consolidation is not feasible for attaining economy of scale in size of high schools under either the quarter or trimester systems.

Estimated Cost of Air-conditioning School Plants to be Retained that are not now Air-conditioned

The board has established the policy of air-conditioning all school plants constructed in the future. Some plants have already been air-conditioned. Table 5 shows that the square footage of all the existing school plants recommended by the 1965 State Department of Education Survey to be retained totals 1,799,127. Estimates were obtained from a number of contractors and architects of the cost per square foot of air-conditioning school buildings that were originally constructed without air-conditioning. The cost of installing air-conditioning varies from building to building of the same size depending upon many factors such as the numbers of stories in the building, the glass area, whether the plant has single-loaded or double-loaded corridors, the orientation of windows, the perimeter of the building, the insulation of walls and ceilings, the quality and adequacy of the equipment installed, and other factors. Since costs vary so greatly due to these factors, it was difficult to obtain firm estimates. The average of the estimates obtained was approximately $3.50 per square foot for a satisfactory installation. This figure could be reduced by installing cheaper equipment. However, operating and maintenance costs would be increased and the system would not be as satisfactory.

On the basis of $3.50 per square foot, it would require approximately $6,296,945 to install air-conditioning in all the school plants of Polk County recommended to be retained by the 1965 State Department of Education Survey. This would be an additional cost of any plan which involves the use of all school plants during the summer months. As a matter of fact, it may become an additional cost under even the present plan of operation. Some air-conditioned plants have already been constructed, and all plants constructed in the future will be air-conditioned. There are many school days in the fall and the spring in Polk County during which the pupils and teachers would be much more comfortable and productive in air-conditioned buildings. It is just as rational to lower the temperature of a building in order to make people comfortable as to raise the temperature. Air-conditioning is becoming a part of our way of life. Therefore, it is quite likely in the future that the parents of pupils housed in non-air-conditioned buildings will insist that their children be provided with facilities equal in comfort to those provided

TABLE 5

SQUARE FOOTAGE OF NON-AIR-CONDITIONED SCHOOL PLANTS RECOMMENDED TO BE RETAINED BY THE 1965 STATE DEPARTMENT OF EDUCATION SCHOOL PLANT SURVEY

Name of Centers	Air-Conditioned		Desirable Capacity		Square Footage
	Yes	No	Pupils	Grades	
Alta Vista		X	735	1-6	15,642
Alturas		X	180	1-6	9,606
Auburndale Center		X	461	1-6	19,758
Auburndale Sr. Hgh.		X	1,265	7-12	52,342
Babson Park		X	135	1-6	9,394
Bethune		X	765	1-6	19,076
Brigham F. E.		X	1,035	1-6	48,952
Caldwell, Walter		X	615	1-6	16,254
Central Ave.		X	340	1-6	27,615
Combee		X	705	1-6	25,028
Cox, John F.		X	445	1-6	30,994
Crystal Lake Ele.		X	735	1-6	26,053
Crystal Lake Jr.		X	1,200	7-9	33,092
Davenport		X	525	1-6	70,655
Dundee		X	350	1-6	8,593
Eagle Lake		X	365	1-6	21,716
Dixieland		X	465	1-6	21,644
Denison Jr. Hgh.		X	755	7-9	54,724
Eastside		X	405	1-6	17,100
Elbert		X	435	1-6	17,938
Floral		X	735	1-6	24,593
Frostproof Ele.		X	670	1-6	19,957
Garner, F. G.		X	735	1-6	24,876
Gibson St.		X	615	1-6	17,982
Griffin		X	401	1-6	14,030
Haines City Jr.		X	1,154	7-9	29,701
Haines City Sr.		X	851	10-12	40,013
Highland City		X	315	1-6	16,301
Hillcrest		X	615	1-6	19,881
Inwood		X	325	1-6	14,589
	X		465	1-6	
Jewett Primary		X	385	1-6	17,734
Jewett Jr.-Sr.		X	950	7-12	25,901
Kathleen Ele.		X	435	1-6	14,361
Kathleen Jr. Hgh.		X	915	7-9	40,315
Kathleen Sr.		X	1,186	10-12	59,369
Keen, Jesse	X		675	1-6	
Kingsford		X	360	1-6	16,010
Lake Alfred Ele.		X	494	1-5	14,934
Lakeland High		X	1,798	10-12	74,121
Lake Shipp		X	555	1-6	15,092
Lake Wales Jr.	X		688	7-8	
Lee, J. R. E.		X	745	1-9	24,783
Lena Vista	X		660	1-6	
Lewis		X	480	1-6	19,752
Lime St.		X	645	1-6	23,085
Lincoln Ave.		X	720	1-6	30,588
Medulla		X	735	1-6	19,383
Mulberry Ele.		X	460	1-6	20,959

TABLE 5—Continued

Name of Centers	Air-Conditioned		Desirable Capacity		Square Footage
	Yes	No	Pupils	Grades	
Mulberry Jr.-Sr.		X	927	7-12	29,153
North Lakeland		X	465	1-6	14,193
Edgar L. Padgett	X		675	1-6	
Plamore, Carlton		X	735	1-6	22,454
Polk Ave. Ele.		X	435	1-6	25,198
Polk City Ele.		X	210	1-6	6,906
Oscar J. Pope	X		555	1-6	
Riverside Ele.		X	240	1-6	9,230
Rochelle Jr.-Sr.		X	783	7-12	43,851
Roosevelt Jr.-Sr.-E.		X	843	C 5 1-6	
				C 5 10-12	
				C 2 7-9	22,520
Snively, J. W.		X	435	1-6	19,803
Southwest Ele.		X	462	1-6	27,486
Southwest Jr. Hgh.		X	978	7-9	50,917
Spook Hill Ele.		X	363	1-6	18,559
Union Academy Jr.-Sr.-Hgh.		X	423	C 5 10-12	
				C 2 7-9	29,419
Wahneta		X	690	1-6	17,951
Webster Ave.		X	285	1-6	41,436
West Bartow Ele.	X		465	1-6	
Westwood Jr. Hgh.		X	931	7-9	40,412
Wilson, Janie H.	X		735	1-6	
Winston Ele.		X	685	1-6	26,095
Winter Haven Sr.		X	1,514	10-12	79,527
Anna Woodbury		X	255	1-9	13,182
Bartow Jr. Hgh.		X	1,052	7-9	29,312
Bartow Sr. Hgh.		X	1,185	10-12	47,037
Total:					1,799,127

for other children. For this reason, no attempt is made in this monograph to make differentials in the estimates for air-conditioning old buildings for the different plans of operation analyzed.

Estimates of Differences in Costs for Different Plans of Operation

The methods for making rational estimates of differences in costs of different plans of operation which have been presented are applied to those plans in this section of the report. Dollar estimates are not presented. The estimates are presented in terms of percent increases or decreases in expenditures as compared with the present system.

Plan 1. The Present Program Without Any Change. Since this is the base from which the estimates for other plans are made, no estimate of increased costs is presented. However,

as pointed out above, those costs will increase as attendance increases, as salaries and wages are raised and as other costs increase as a result in part of inflation. However, as this base increases, the estimated costs for other plans presented in percentages should increase proportionately. Therefore, the estimates presented below should be relatively valid despite the fact that the expenditures for the present system of operation will undoubtedly increase.

Plan II. The Present Program Plus a Summer Program operated Without Cost to Parents—Voluntary Attendance. It is extremely difficult to make an accurate estimate of differences in costs for this plan. Changes in costs will depend largely upon how many pupils will attend school under this voluntary plan. Let us assume that 50 percent of the pupils will attend school during the summer months. Under the Foundation Program Law, the board already receives funds for ⅛ of its instructional personnel for summer school operation plus additional allotments for the summer employment of certain of its vocational teachers. Therefore, in order for the board to provide summer school programs for 50 percent of its pupils, it would have to employ an additional ⅜ of its instructional personnel for 35 days. Each of these teachers would receive 17.5% of a ten-months salary for additional length of service. This would increase the total budget for instructional salaries approximately 6.56%. In the following table the estimated additional costs of all functions of expenditures are set forth. There should be no increased cost for central administration because the office presently is in operation for 12 months each year. It is assumed that the cost of operation and the cost of auxiliary services will be increased in about the same percent as instruction cost. The principal item in auxiliary agencies is school transportation. There should be little or no increased expenditures for maintenance, fixed charges (mainly insurance) and capital outlay. Therefore, the total estimated increase in net total school expenditures under Plan II to serve 50 percent of enrollment is 5.55. A maximum estimated increase is 6 percent. A considerable part of this estimated increase could be offset by savings in the cost of reteaching students who had not been promoted because this plan would provide the opportunity for weak students to make up deficiencies during the summer months.

TABLE 6

PLAN II ANALYZED

Function	Percent of total net expenditure under present plan Col. 1	Estimated increase or decrease for Plan II Col. 2	Estimated percent increase or decrease in total net expenditures under Plan II Col. 3 (Col. 1 x Col. 2)
Administration	1.4	0.00	0.00
Instruction	77.2	.0656	5.06
Operation of Plant	4.8	.0656	.31
Maintenance of Plant	2.4	0.00	0.00
Auxiliary Services	2.8	.0656	.18
Fixed Charges	.9	0.00	0.00
Capital Outlay Costs	10.5	0.00	0.00
	100.0%		5.55%

Plan III. The Present Program Plus a Summer Program Operated Without Cost to Parents but with Compulsory Attendance for Students Who Are Not Promoted and Voluntary Attendance for Others. It is also extremely difficult to make an accurate estimate of increased expenditures under Plan III. It is identical to Plan II with the exception that non-promoted pupils would be required to attend summer school.[3] It is reasonable to assume that most of the non-promoted pupils would attend summer school under Plan II. Therefore, the estimated increased costs of Plan III should be very close to the estimated costs of Plan II. It seems reasonable to estimate that increase in the net total expenditures for Plan III would not exceed 5.70 to 6.15 percent. This increase would be partially offset by reducing non-promotions and saving the cost of repeating a grade. If 2,000 of the 3,000 non-promoted pupils would advance in their studies during the summer term sufficiently to be promoted, the savings would be substantial. Two thousand pupils are equal to four percent of the total enrollment. It is not suggested that the total net expenditures could be reduced as much as 4 percent by eliminating 2,000 non-promotions. However, the actual savings in dollars might be as much as 2 to 3 percent and the social gains even greater.

[3] It would require an Act of the Legislature in order to legalize this requirement.

Plan IV. A Staggered Four-Quarter System Requiring One-Fourth of the Pupils to be on Vacation Each Quarter. This plan would cost much more money instead of less. Table 3 shows that 1079 elementary teachers would be required under Plan IV for the 1965-66 enrollment as compared with 910½ under the present plan after taking into consideration the consolidations recommended by the 1965 State Survey. Table 4 shows that 898.2 junior and senior high school teachers would be required to staff the 1965-66 enrollment as compared with 853.2 under the present plan after taking into consideration the recommended consolidation of small schools. Thus under Plan IV it would require 1,977.2 teachers to staff the schools now staffed by 1763.7 teachers. This is an increase of 12.1 percent in the number of teachers employed. These teachers would also all be paid 20% more than their ten-months salaries because they would all be teaching for 12 months. Let us assume that ⅛ of the instructional staff is already employed for 12 months. Then an additional ⅞ of the present staff would be employed for 12 months plus the 12.1 percent of additional teachers required. On this basis, expenditures for instructional salaries would have to be increased 30.3 percent under Plan IV. Table 7 below shows the estimated increase in school costs by function under Plan IV. It is estimated that the total net expenditures would increase 25.21 percent under Plan IV. It would accomplish nothing that is not already being accomplished under the present plan of operation and would increase school costs more than 25 percent. It is a most uneconomic plan yet it has often been advocated without analyzing the potential costs, for an equivalent quality of education. If there is no concern about reducing the quality level of education it should be possible to reduce educational costs under Plan IV. Theoretically the costs of constructing and maintaining buildings could be reduced by 25 percent because only 75 percent of the pupils in Polk County would be in school at any one time. Capital and maintenance costs for school plants in Polk County total only 12.9 percent of net expenditures. One-fourth of this amount is a reduction of only 3.25 percent in total net expenditures and as has already been pointed out, this could be attained only by a sacrifice of quality.

The above estimates for functions other than instruction were derived as follows: (a) No increase in administration costs is estimated but it is probable that such a complicated schedule might involve some increase in the costs of the central

administration. (b) The plants will be operated for 20 percent more time, but since approximately 1/8 of the plant space is already operated during the summer months, it is estimated that these costs will increase 17.5 percent plus 6.1 percent for the additional areas required, or a total of 23.6 percent. (c) No increase is estimated for maintenance although there might be a small increase in this item. (d) No increase or decrease is estimated for auxiliary agencies because any decrease in the total number of pupils transported is offset by the extended length of time for which school buses would be operated. (e) Increases for fixed charges and capital outlay are estimated as being equal to about one-half of the percent increase in the number of teachers employed. Each additional teacher employed will require an additional classroom but the general service portions of the school plan would not have to be expanded. The same reasoning was applied to estimating the increases in operating costs resulting from the construction of the additional classrooms required under Plan IV.

TABLE 7

PLAN IV ANALYZED

Function	Percent of Total Net Expenditures Under Present Plan Col. 1	Estimated Increase or Decrease for Plan IV Col. 2	Estimated Percent Increase or Decrease in Total Net Expenditures under Plan IV Col. 3 (Col. 1 x Col. 2)
Administration	1.4	0.00	0.00
Instruction	77.2	.303	23.39
Operation of Plant	4.8	.236	1.13
Maintenance of Plant	2.4	0.00	0.00
Auxiliary Services	2.8	0.00	0.00
Fixed Charges	.9	.061	.05
Capital Outlay Cost	10.5	.061	.64
	100.0%		25.21%

Plan V. Four Quarters of Continuous Study. Makes Possible Graduation From Elementary School One Year Earlier and Graduation from Secondary School One Year Earlier. This plan involves the operation of all elementary and high schools 220

days per year for all pupils. Theoretically pupils could complete 12 years of schooling in 10 years under Plan V. This plan is similar in a number of respects to the plan by which Soviet Russia operates its schools. School enrollment theoretically could be reduced 16⅔ percent under Plan V, but the schools would operate longer. Teachers employed on this basis would have to be paid 20 percent more but the number of teachers theoretically could be reduced by 16.7 percent. It is assumed that ⅛ of the instructional staff is already employed on a 12-months basis under the present plan. Using these assumptions, payments for instructional salaries could be reduced 2.5 percent.

Table 8 shows that the net total of school expenditures could be reduced approximately 4.23 percent under Plan V. Expenditures for capital outlay, maintenance of buildings and fixed charges could probably each be reduced by 16.7 percent because of that anticipated reduction in pupil enrollment. Operation and auxiliary agencies could not be reduced because a reduction of 16.7 percent of pupils served would be accompanied by a 20 percent increase in length of service.

TABLE 8

PLAN V ANALYZED

Function	Percent of Total Net Expenditures Under Present Plan Col. 1	Estimated Increase or Decrease for Plan V Col. 2	Estimated Percent Increase or Decrease in Total Net Expenditures under Plan V Col. 3 (Col. 1 x Col. 2)
Administration	1.4	0.00	0.00
Instruction	77.2	— .025	—1.93
Operation of Plant	4.8	0.00	0.00
Maintenance of Plant	2.4	— .167	— .40
Auxiliary Services	2.8	0.00	0.00
Fixed Charges	.9	— .167	— .15
Capital Outlay Cost	10.5	— .167	—1.75
	100.0%		—4.23%

It might be argued that the delay of the entrance of pupils into school until they are seven years of age and the completion of 12 years of schooling in 10 would result in a lowering of the quality level of the Polk County schools. If this con-

tention is a fact, then Plan V violates the criterion that no plan should be considered which would result in lowering the quality level of the Polk County schools.

Five years would have to elapse before any reduction of costs would be realized and ten years before the full 4.23 percent reduction obtained. It would require an annual immediate increase of approximately 14.72 percent to inaugurate Plan V. This annual increase would decline to less than one-half of that amount after five years and after ten years there should be a reduction of approximately 4.23 in net expenditures.

The Minimum Foundation Program Law and the Law Providing for the allocation of the Sales Tax Trust Fund to the Counties would have to be amended if a county would receive the same funds under Plan V as it is receiving under the present plan of operation. If the enrollment of a county is reduced by 16.7 percent, the county would suffer a reduction in State funds of approximately the same amount.

Plan VI. The Trimester Plan—Two-Thirds of the Students in School and One-Third on Vacation Each Trimester. Table 3 shows that the number of elementary teachers employed would be reduced from 910½ to 788 under this plan after taking into consideration the consolidation of small schools recommended by the State Survey. Table 4 shows that the number of junior and senior high school teachers employed would be increased from 853.2 to 885.0 under this plan after taking into consideration the savings that could be affected by the consolidation of the very small schools. This would be a net reduction of 103.7 or 5.88 percent in the number of teachers employed. However, salaries of the teachers not now employed on a 12-month basis would all have to be increased 20 percent. Therefore, the net increase in expenditures for teachers' salaries would be 10.2 percent.

Table 9 shows that the net expenditures would have to be increased by 8.9 percent in order to operate under Plan VI. Costs were estimated in accordance with the same rationale used in estimating costs under Plan IV.

As already pointed out, Plan VI might result in a lowering of the quality level because of the extended vacation period and the extended school day. It is an uneconomic plan because it increases school costs and possibly decreases the quality level of education.

TABLE 9

PLAN VI ANALYZED

Function	Percent of Total Net Expenditures Under Present Plan Col. 1	Estimated Increase or Decrease for Plan VI Col. 2	Estimated Percent Increase or Decrease in Total Net Expenditures under Plan VI Col. 3 (Col. 1 x Col. 2)
Administration	1.4	0.00	0.00
Instruction	77.2	.102	7.87
Operation of Plant	4.8	.146	.70
Maintenance of Plant	2.4	0.00	0.00
Auxiliary Services	2.8	0.00	0.00
Fixed Charges	.9	.029	.03
Capital Outlay Cost	10.5	.029	.30
	100.0%		8.90%

Plan VII. Three Trimesters of Continuous Study Providing for Students to Graduate One Year Early in Elementary School and One Year Early in Secondary School. This plan is practically identical to Plan V with the exception that the school year would be divided into trimesters instead of quarters. The cost of operating Plan VII would be practically identical with Plan V. Therefore it is estimated that net school expenditures could be reduced 4.23 percent under Plan VII. However, like Plan V, it might result in a reduction of the quality level of education and the full estimated reduction in expenditures could not be realized until the passage of ten years.

As in the case of Plan V, the Minimum Foundation Program Law and the Law Providing for the Sales Tax Trust Fund would have to be amended if a loss of State funds by the county adopting Plan VII is prevented.

Plan VIII. Operate all Schools for 210 Days Providing Continuous Study for All Pupils, Provide One Additional Year of Enriching Study in the Elementary School and Graduate One Year Early in Secondary School. This plan was not presented in the questionnaire. However, several versions of this plan are under consideration in New York State.[4] The Primary pur-

[4] See: *Economy and Increased Educational Opportunity Through Extended School Year Programs* published by The University of the State of New York, the State Education Department, Albany, N. Y., August, 1965.

pose of Plan VIII is not to reduce school expenditures but to increase the quality level and to obtain a better return from the funds now being expended.

New York officials have noted that, "The average length of the school year in 51 representative countries of the world is 210 days, but the pupils do not seem to be showing any evidence of strain." [5]

Under Plan VIII, pupils would have the time to study foreign language, music, and art as well as to obtain a more thorough grounding in the basic subjects usually taught in all elementary schools. Retardation should be largely eliminated and the pupils will be better prepared for high school and therefore the quality of the high school work should be improved. The high school graduates of the Polk County schools should be superior to the graduates of traditional school systems in their educational development under this plan because they would have had the major part of an additional year of schooling although they would average a year younger. As a matter of fact, the equivalent of an entire additional year for enrichment could be obtained by extending the school day only ten minutes beyond its present length. It might be argued that 17 is too young an age for pupils to leave home and go to college. However, Polk County is developing an excellent junior college which immature students might attend for a year or two before going to senior college. Furthermore, an accredited private senior college is located in Polk County. Actually more Florida high school graduates of all levels of maturity enter community colleges than the freshman year of senior colleges.

An estimate of the differences in costs of operating the schools of Polk County under Plan VIII is presented in Table 10. This table shows that under Plan VIII school costs could be reduced by —.72 percent and the educational opportunities for the pupils considerably extended. The estimates in Table 10 are based on the assumption that enrollment can be reduced 8.3 percent by pupils completing 12 years of schooling in 11 years and that enrollment can be reduced another two percent by reducing the rate of retardation and repeating grades from 6 to 4. Therefore, the total estimated reduction in enrollment five years after the installation of Plan VIII is 10.3 percent. This is a reasonable assumption. If it is assumed that there will be no reduction

[5] *Ibid.*, p. 15.

in the percent of retardation under Plan VIII, the increase in total net expenditures would not exceed 1.3 percent. The best estimate is that the installation of Plan VIII would cause no increase in school costs. It is true that it would cause an increase in school costs until five years had elapsed. It is estimated that the installation of Plan VIII would cause an initial increase in net school expenditures of a maximum of 11 percent. This increase would probably decline only slightly until the passage of five years and then decline to zero. The pupils would begin to receive the benefits from Plan VIII immediately upon its installation. The increased expenditures for the first five years could be considered as an investment in order to obtain the attractive benefits of Plan VIII when it is fully operative.

TABLE 10

ANALYSIS OF PLAN VIII

Function	Percent of Total Net Expenditures Under Present Plan Col. 1	Estimated Increase or Decrease for Plan VIII Col. 2	Estimated Percent Increase or Decrease in Total Net Expenditures under Plan VIII Col. 3 (Col. 1 x Col. 2)
Administration	1.4	0.00	0.00
Instruction	77.2	.006	.46
Operation of Plant	4.8	.031	.15
Maintenance of Plant	2.4	— .103	— .25
Auxiliary Services	2.8	.031	.09
Fixed Charges	.9	— .103	— .09
Capital Outlay Cost	10.5	— .103	—1.08
	100.0%		— .72%

From the standpoint of obtaining the greatest amount of educational return per dollar invested in the public schools, Plan VIII is without doubt the best plan described in this report.

The findings of this study correspond with the findings of the researchers in the New York State Department of Education. Those officials concluded: "The basis of economy in all extended school year plans lies in the fact that they result in a reduction in the total school enrollment and subsequent release of classrooms and teachers." [6]

[6] New York State Department of Education, *op. cit.* Pages 5-6.

It has been estimated that the enrollment of Polk County could be reduced by 10.3% from what it otherwise would be, five years after the adoption of Plan VIII. Unless there is an amendment to the State Minimum Foundation Program Law and the Law allocating the Sales Tax to the Counties, there would be a reduction of approximately 10.3% in State funds. If the county desires to adopt Plan VIII it should not be penalized in the distribution of State funds. Therefore, it is recommended that the Minimum Foundation Program Law and the Law allocating the Sales Tax Trust Fund to the Counties, be amended so that five years after the adoption of Plan VIII by a county its allocations from these two funds would be increased 11.15%. This would bring the allocation back to the level where it would have been if the county had not adopted Plan VIII.

Since the adoption of Plan VIII would result in the general improvement of the schools of the State without costing any additional money from either State or local sources after the lapse of 5 years, the State should provide a financial incentive rather than a penalty for counties adopting Plan VIII. It has already been estimated that it would require a net increase of 11 percent annually to install Plan VIII in a county for the first 5 years. In order to provide an incentive for counties to adopt Plan VIII it is recommended that the Foundation Program Law and the Law allocating the Sales Tax Trust Fund be amended so as to increase the allocations from these two funds to which the counties adopting Plan VIII would otherwise be entitled, by 5½ percent annually for 5 years after the initiation of the plan. Thus, the State would share in providing for part of the additional cost for the inauguration of Plan VIII in order that the county and the State itself might ultimately receive the benefits of Plan VIII. If Plan VIII were adopted throughout the State, a major increase in the quality of education in Florida could be achieved by only a modest increase in school expenditures for five years and after five years no greater cost than the present program. Most proposals for the increase in the quality of education usually call for an increase in expenditures for the same program with but little assurance that increased quality will be attained. Plan VIII involves an important change in the educational program which will in effect give all pupils an extra year of schooling and one year of acceleration at no extra cost to the taxpayers after five years. It should also give the graduates of the public schools of Florida a distinct advantage

over the graduates of schools in other states that operate on the traditional 175 to 180 day schedule.

Summary. Table 11 summarizes the estimates presented for all 8 plans. If the distribution of expenditures by function changes substantially in Polk County in the future, these estimates may be readily adjusted by changing the data in Column 1 of Tables 6 to 10 and multiplying by Column 2 again.

Researchers in school systems that pay teachers for 9 months service instead of ten months should recompute the multiplication factors in Column 2 of Tables 6 to 10 before multiplying.

The data summarized in Table 11 should be valid for any school system that employs its teachers at present on a ten-months basis and has a functional distribution of school expenditures similar to Polk County. Any system paying teachers on a ten-month basis having a substantially different functional distribution of expenditures from Polk County, can substitute its own distributional pattern in Tables 6 to 10 and compute reasonably valid estimates for these eight plans.

SPECIAL PROBLEMS IN ADMINISTRATION AND CURRICULUM DEVELOPMENT

The adoption of any all-year school plan considered in this report would necessitate changes in administrative arrangements for the operation of schools. The purpose of this section is to discuss some of the significant administrative problems that would be associated with the initiation of the year-round school. In some problem areas there would be no essential differences among several of the plans. For instance, simliar teacher personnel problems would be associated with most of the all-year plans considered in this report with the possible exception of the voluntary and compulsory summer attendance plans. During the initiation of this study, county officials were especially interested in an analysis of administrative feasibility of the staggered four-quarter (Plan IV), trimester (Plan VI), and the voluntary and compulsory summer attendance plans (Plans II and III). The administration of the voluntary or compulsory summer attendance plan involves similar administrative problems. Also, there is essentially no major difference in the administration of the four-quarter and trimester plans.

TABLE 11

COMPARISON OF THE PER CENT OF INCREASES AND DECREASES IN NET EXPENDITURES FOR PLANS I TO VIII

Function	Plan I (Present Plan)	Plan II	Plan III	Plan IV	Plan V	Plan VI	Plan VII	Plan VIII
Administration	0	.00	.00	.00	.00	.00	.00	.00
Instruction	0	5.06	5.21	23.39	—1.93	7.87	—1.93	.46
Operation of Plant	0	.31	.31	1.13	.00	.70	.00	.15
Maintenance of Plant	0	.00	.00	.00	— .40	.00	— .40	— .25
Auxiliary Services	0	.18	.18	.00	.00	.00	.00	.09
Fixed Charges	0	.00	.00	.05	— .15	.03	— .15	— .09
Capital Outlay Cost	0	.00	.00	.64	—1.75	.30	—1.75	—1.08
Total	0%	5.55%	5.70%	25.21%	—4.23%	8.90%	—4.23%	— .72%

Problems Associated With Administering Summer Attendance Plans

Neither the voluntary nor compulsory summer attendance plans can be initiated successfully unless the board of public instruction places the responsibility for their development in some administrative head. The tradition of summer vacation is very difficult to overcome. The diffusion and adoption of the idea of summer school among parents and students will entail constant effort, especially for the successful initiation of voluntary attendance. Much planning must be invested in the development of the summer attendance plan. We anticipate that the effective administration of the plan would require the services of an assistant superintendent, secretarial services and, if the plan is popular, possibly additional central office staff.

The person who is placed in charge of the development of the summer attendance plan should have authority, subject to the approval of the director of instruction and superintendent, to maintain general supervision over the summer program. He could communicate directly with school principals in order to obtain data needed in estimating the number of students enrolling, and courses needed in the program. The administrator in charge of the summer program would also be responsible for the assignment of staff for the program.

It is difficult to estimate how many pupils would be involved in a summer program plan in accordance with either Plan II or Plan III. Our survey indicated that about 47 percent of the parents and 37 percent of the students favored a plan of voluntary and compulsory attendance (Plan III) over all other plans presented. Aggressive promotion of the summer plan would obviously increase attendance over present enrollments.

The compulsory attendance plan (Plan III) has some advantage over the entirely voluntary plan (Plan II) by virture of the fact that all students failing would be required to attend. However, the success of Plan III is also heavily dependent upon the promotion of voluntary attendance. Otherwise, the compulsory attendance feature would give Plan III the image of being only for those who fail. This image would cause many students to avoid the attendance for purposes of graduating earlier or taking courses for academic enrichment. If voluntary attendance is appreciably decreased, the compulsory plan could become an expensive operation per pupil served. We have

shown in this report that school costs are largely a function of pupil-teacher ratio. By requiring students to attend who fail and having no control over the subjects failed, the pupil-teacher ratio could be lowered appreciably. For example, let us assume that only five students in the county failed Latin, three failed agriculture, and ten failed the fifth grade. The county would be forced to furnish a teacher for each of these groups even though they are small in number. A large voluntary attendance would probably more than offset the small groups. We believe that voluntary enrollment would increase over the present program if the program is planned well and promoted aggressively.

Neither of the summer attendance plans would greatly increase the administrative load over the present program. It might be possible to reorganize the present staff in order to administer the program without employing additional staff.

The Staggered Four Quarter (Plan IV) and Trimester Plans (Plan VI)

There are no essential differences in the administrative problems associated with either the four-quarter or trimester plans. Thus, the same problems found in the administration of the four-quarter plan will exist in the trimester operation.

The four-quarter operation results essentially in the administration of four schools in the same building in one year. The main difference in the trimester operation is that there are three instead of four organized "starts" and "stops" during the year. For example, in the four-quarter plan instead of having one schedule each year, the typical high school would have four schedules for four different groups of students. School bus routes would have to be rescheduled, four times during the year. Scheduling children who live on the same bus route for the same quarter would be next to impossible.

One could estimate conservatively that the four-quarter plan would quadruple the amount of administrative planning, paper work, public relations activities, staffing, and other activities over the present program. Without a satisfactory solution to this problem, the costs of administration for the program would soar well above present levels.

High speed computers offer the possibility of overcoming many of the increased administrative problems associated with

the four-quarter and trimester plans. For example, it is possible to use computers in establishing efficient and economical bus routes. Experiments are under way in the use of computers for printing a completed schedule for high schools. Consequently, within a few years the county might be able to install an electronic data processing system which would accomplish many of the additional administrative activities that would be necessitated in the staggered term plans. Also, this equipment would relieve administrators of responsibilities in other general areas of program administration. The use of computers for scheduling and other administrative decision-making activity is presently in the experimental stage. Shortage of appropriate hardware and lack of programs for these purposes probably mean that the initiation of such a program is several years in the future. It is evident, however, that these machines will solve many of the administrative headaches connected with the operation of public schools as well as to reduce costs.

The operation of the staggered term plan would entail very difficult administrative problems for which an electronic data processing system would be of little assistance. For instance, the irate mother who wants an explanation for why she must have some of her children at home and others at school each term under Plan IV would scarcely be satisfied by a computer print-out of the most efficient and economical schedule for the schools. She would demand time to talk with the principal, superintendent, and school board member. There would be countless demands by parents to have their children attend school during certain terms. Someone on the school staff will have to take time to counsel with parents, students, and teachers concerning numerous problems associated with the change. In our survey of parent opinion the staggered term approach to the all-year school was very unpopular. We believe that this sufficiently demonstrates that numerous personal demands would be made upon the time of administrators. Perhaps the time saved by the use of the electronic data processing would be more than offset by the additional time necessary to handle the increased personal problems. This is very difficult to estimate.

School Plant Maintenance

One of the administrative problems which other authorities mention in connection with the all-year school is finding a time for school plant rehabilitation. Many school systems plan ex-

tensive repairs and maintenance of school plant facilities during the summer months when the students are on vacation. Although we recognize that school plant renovation and maintenance is more complicated under the four-quarter plan that in the traditional nine-month school, we do not believe that this is a valid criticism of the all-year school idea. Repairs and maintenance activity can be scheduled and carried out while school is in session without serious disruption to the educational program.

Teacher Personnel

One of the disadvantages often cited by writers concerning the all-year school is the interference with the further professional education of teachers. Teachers have used the summer vacation months for attending workshops, institutes, conferences, and courses which keep them up to date. Rapidly changing knowledge in all fields, developments in new technologies of instruction, and new materials of instruction make it mandatory that these activities continue. Examples of these activities are the instruction of teachers in the modern math, PSSC physics, and languages. There are many new instructional materials being developed which will somehow have to be disseminated to teachers. Some teachers, of course, use the summer period to work on a graduate degree at a university of their choice. Most universities have a residence requirement which prevents the awarding of a degree through courses taken entirely by extension.

The adoption of any all-year school plan would necessitate the development of some administrative arrangements to overcome this disadvantage. In the case of teachers working on advanced degrees, the board could award short-term leaves to teachers so that they could satisfy normal residence requirements. The balance of courses, in addition to those taken in full-time residence on campus, could be taken at a graduate residence center or through extension. The problem of attending institutes, workshops, and short courses to update knowledge and teaching theory is more difficult to solve than that in connection with teachers working on advanced degrees. The modern developments in subject matter and teaching have usually been disseminated through groups of teachers attending summer institutes, short-term workshops, and campus courses. Arranging on-campus summer institutes to which teachers from

several cooperating school systems may attend has been especially helpful. Since the adoption of the four-quarter plan would make the Polk County out of phase with other districts, the teachers of Polk County would be denied the opportunity to attend summer institutes. This may mean that the county would have to assume additional financial outlays in order to provide more of these services within the county. Any costs incurred for this purpose would be in addition to the estimates of costs of all-year operation discussed in another section of this report. It may be advantageous also to employ more subject matter specialists as supervisors who could carry out many of these activities for teachers through the regular in-service training program of the county.

Any all-year school plan would necessitate the development of a new set of school board policies with regard to teacher personnel policies. Initiation of the plan will result in more requests for leave than previously experienced by the board. Policies relative to sick leave, salaries, tenure, etc. will need to be considered in the light of the all-year school.

We are not able to obtain reliable estimates of whether the adoption of the all-year school would result in problems of teacher recruitment. Some writers suggest that many teachers who are not greatly dependent upon teaching for a livelihood would resign their positions under the all-year school. If this should happen, these writers suggest that teacher shortage would become critical. One advantage that any all-year school plan has over the traditional school year is full-time employment. Consequently, recruitment would seem to be more effective under any all-year school plan. Young teachers would find full-time employment especially attractive.

Contrary to the opinion stated earlier, we believe that teacher recruitment will be greatly improved in the all-year school. The fact that some teachers would resign is not a problem. In fact, it would probably result in attracting teachers who are true professionals rather than depending upon persons seeking part-time employment. The year-round school may be a solution to the teacher shortage by offering full-time employment.

Curriculum Development

If the board decides to implement either Plan II or III, the staff will need to give some consideration to the further development of the school program. These plans would not entail

as drastic a revision in the organization of the program as would be necessitated under a completely new plan, because the staff has had considerable experience already with the summer program. The adoption of either Plan II or III, however, would necessitate the development of an academic program for the summer which may be somewhat limited under present circumstances. Studies will need to be conducted concerning the types of courses and activities offered in the increased summer program. Consideration should be given to the use of teaching teams, independent study, and other special arrangements for instruction in the academic program. In another section of this report we have suggested that the board make some person responsible administratively for this program. We would suggest that this person be given the authority necessary to make thorough studies of curriculum needs under Plan II and III.

In this report we have also recommended that the county consider the adoption of the 210 day year. This is entitled Plan VIII in other sections of this report. The adoption of this plan would require a rather complete revision of the curriculum and the education of teachers in the new curriculum arrangements. We consider this step essential to the successful operation of the plan. This would require the outlay of funds to employ consultants and purchase the time of supervisors and teachers who would be directly engaged full-time in producing curriculum materials for the plan. The procurement of funds for this purpose could be obtained through such agencies as philanthropic foundations, Title III of the federal elementary and secondary school act, or through the regional laboratories now being established.

We would recommend that the county employ expert consultant services in writing a proposal to support the curriculum activity necessary in the 210 day school. This report could then be submitted to any one of a number of agencies interested in supporting educational innovations. We feel sure that some agency will be interested in supporting this phase of the innovation.

Pupil Assignment, Transfer, and Related Pupil Personnel Problems

The adoption of any plan of rotation (i.e., the four quarter or trimester plan) would require extensive reassignment of

pupils. In another section of this report we have shown that a rotation plan would require very extensive consolidation of schools in the county. Unless this is done the cost of operating the staggered term approach would be prohibitive because of the lowered pupil-teacher ratio. This would necessitate the input of much energy in public relations in order to convince parents of the necessity to consolidate schools and reassign pupils.

Some authorities suggest that a staggered term plan would complicate the procedure for accepting student transfers from other schools or school districts. We do not feel that the problem of student transfer will be a serious disadvantage under the plan.

Several authorities have cited difficulties of administering pupil activities as a disadvantage of the staggered term approach to the year-round school. For example, special attention must be given to scheduling students who desire to participate in seasonal sports, band, orchestra, dramatics, and similar activities. Lack of attention to these activities could be a source of public relations difficulties in administering a rotating term plan. The solution will entail special consideration in scheduling and particular attention to the organization and administration of the student activity program. For example, the schools could extend the sports activities to include sports (i.e., baseball, tennis, swimming, golf) that are not emphasized in the present varsity sports program.

Public School Relations

The adoption of the all-year school would be a basic change in policy. Such changes in policy depend upon effective leadership with numerous interacting social systems. The change to an all-year school will involve much leadership effort on the part of the school officials and other leaders in the school district. Judging from previous experience with the staggered four-quarter plan, lack of public acceptance is likely to be a critical factor in adopting an all-year school plan. Where the year-round school has been tried (i.e., Aliquippa, Pennsylvania, Amarillo, Texas, Nashville, Tennessee) parental resistance was a factor in deciding to discontinue the experiment. The acceptance of the plan in Polk County would require an immense public relations effort by many leaders in the county. Otherwise the plan is doomed to failure because of lack of public acceptance.

From the survey of opinion concerning the various plans,

the compulsory and voluntary summer plans (Plans II and III) would probably be more popular than any plan proposed. The staggered term plans were selected by a very small percent of parents and teachers. Unless the board could succeed in obtaining a higher degree of public acceptance for the staggered term plan than indicated in this survey, this version of the all-year school will have to overcome firmly implanted traditions of an agrarian economy. There are public relations problems associated with the seasonal sports program and the attendance of students under the staggered term version of the all-year school.

Plan VIII was not included in the questionnaire to parents because the advantages had not been determined at the time the questionnaire was prepared. If the parents of pupils are fully informed concerning the long term advantages of Plan VIII, it is quite possible that they would accept it without much opposition. It would undoubtedly, however, require an extensive program of public relations in order to sell Plan VIII to the parents and pupils of the Polk County School System.

PUBLIC REACTION TO PLANS FOR THE YEAR-ROUND SCHOOL PROGRAMS

A part of the plan of the study included sampling of public opinion on the various plans under consideration for extending the school year. After the staff had clearly identified seven different plans, including the present program in operation, these were described briefly in a seven page memorandum which was distributed through the schools to a random sampling of parents, teachers, and junior and senior high school students.

To insure an accurate random sampling, the principals were given precise instructions as to how the memoranda were to be distributed. For teachers, the principal was instructed to take his roster of teachers and start with teacher number 2 and distribute the memorandum to every fifth teacher which would include numbers 2, 7, 12, 17, and on. For students, the memoranda were to be distributed two to each home room and the teachers were instructed to distribute these to pupils numbers 5 and 15. For parents, two parents random selected from each home room or grade section were to receive a memorandum. These were to go to parents of students numbers 10 and 20. Each principal was invited to fill out a reaction sheet.

The reaction sheet carried a one-sentence description of each of the seven plans. They are reproduced here for quick reference.

Plan I. Present Program Without Any Change

Plan II. The Present Program Plus a Summer Program Operated Without Cost to Parents—Voluntary Attendance

Plan III. The Present Program Plus a Summer Program Operated Without Cost to Parents but With Compulsory Attendance for Students Who Were Not Promoted and Voluntary Attendance for Others

Plan IV. A Staggered Four-Quarter System Requiring One-Fourth of the Pupils to be on Vacation Each Quarter

Plan V. Four Quarters of Continuous Study. Makes Possible Graduation from Elementary School One Year Earlier and Graduation from Secondary School One Year Earlier

Plan VI. The Trimester Plan. Two-Thirds of the Students in School and One-Third on Vacation Each Trimester

Plan VII. Three Trimesters of Continuous Study Providing for Students to Graduate One Year Early in Elementary School and One Year Early in Secondary School

A total of 5,781 memoranda were distributed and 4,210 were completed and returned, 72.8 percent of the number distributed. Table 12 indicates that 69.1 percent of the parents returned the reaction sheets, 98.0 percent of the teachers, and 73.3 percent of the pupils. Since the sampling was completely random and included all schools and communities in Polk County, the returns can be accepted as representing an accurate reaction of parents, pupils and teachers in Polk County to these various proposals.

TABLE 12

PERCENT OF PARENTS-TEACHERS-STUDENTS RETURNING THE REACTION SHEET TO THE SEVEN PLANS CONSIDERED FOR YEAR-ROUND SCHOOLS

	Number Distributed	Number Returned	Percent
Parents	3,584	2,477	69.1
Teachers	497	487	98.0
Students	1,700	1,246	73.3
Total	5,781	4,210	72.8

The results of the poll were tabulated by school level—elementary, junior high, senior high in order to see if there were any basic differences in the way parents, pupils, or teachers

TABLE 13

NUMBER AND PERCENT OF PARENTS, TEACHERS AND STUDENTS FAVORING EACH PLAN—CLASSIFIED ACCORDING TO ELEMENTARY, JUNIOR AND SENIOR HIGH SCHOOLS

	Parents						Teachers						Students			
Plans	Sr. Hi.	Pct.	Jr. Hi.	Pct.	Elem.	Pct.	Sr. Hi.	Pct.	Jr. Hi.	Pct.	Elem.	Pct.	Sr. Hi.	Pct.	Jr. Hi.	Pct.
1	56	16.4	163	22.3	278	19.8	9	15.3	24	18.3	46	15.5	76	17.1	154	19.1
2	80	23.4	175	24.0	317	22.3	10	17.0	15	11.4	62	20.9	133	30.2	258	32.0
3	174	51.1	320	44.0	673	48.1	37	62.8	82	62.6	177	59.6	183	41.5	275	34.2
4	7	2.0	11	1.5	24	1.7	2	3.1	4	3.1	2	.7	13	3.0	30	3.7
5	12	3.4	36	5.0	72	5.1	0		4	3.1	4	1.3	13	3.0	39	4.9
6	6	1.7	13	1.8	11	.8	1	1.8	0		2	.7	19	4.3	22	2.7
7	7	2.0	10	1.4	32	2.2	0		2	1.5	4	1.3	4	0.9	27	3.4
Total	342	100.0	728	100.0	1407	100.0	59	100.0	131	100.0	297	100.0	441	100.0	805	100.0

reacted to the different proposals. The memorandum was not sent to the elementary pupils so reactions are available only from pupils in the junior and senior high schools. The detailed analysis of how the different groups reacted to the various plans is portrayed in Table 13. Plan III, calling for the present program plus a summer program operated without cost to parents with compulsory attendance for students who were not promoted and voluntary attendance for others was without doubt the most popular plan among parents, teachers, and students. There is no difference in the relative choice of plans among the parents or teachers of the elementary, junior high or senior high school groups. Neither was there any difference among the junior and senior high students. While nearly as many students prefer Plan II which calls for voluntary summer school attendance on the part of all concerned as for Plan III which calls for compulsory attendance, the teachers were decidedly in favor of Plan III and so were the parents. It is clearly shown that all want a summer program which is paid for by the school board and which makes provision for enrichment and academic programs which can be used for the purpose of making up work that has been unsatisfactory or for acceleration.

Since the only difference between Plans II and III was a compulsory or voluntary summer attendance, these two might be added together. When this is done, 70 percent of the parents, 79 percent of the teachers and 68 percent of the junior-senior high school students would choose a regular school year plus a summer school. Plans IV, V, VI, and VII received a relatively small number of votes.

TABLE 14

TOTAL NUMBER AND PERCENT OF PARENTS, TEACHERS AND STUDENTS FAVORING EACH PLAN

Plan	Parents	Percent	Teachers	Percent	Students	Percent
1	497	20.1	79	16.2	230	18.4
2	572	23.1	87	17.9	391	31.4
3	1167	47.1	296	60.9	458	36.7
4	42	1.7	8	1.6	43	3.5
5	120	4.8	8	1.6	52	4.2
6	30	1.2	3	.6	41	3.3
7	49	2.0	6	1.2	31	2.5
Total	2477	100.0	487	100.0	1246	100.0

On the reaction sheet Question 2 asked: "Explain why you have chosen this plan", Question 3 called for "modifications in the plan of your choice", and Question 4 called for "general comments". Most of the parents, teachers and pupils gave their reasons for choosing a plan and made general comments. Only in a few cases were modifications of any plans suggested.

Since there were more than 4,000 returns, and approximately 3,500 different comments, it is impractical to try to report on this phase of the reactions in this paper. These reactions were most interesting and indicated careful thought on the part of most parents, pupils, and teachers, revealing a real desire on their part to select the plan that would be most appropriate and fitting for Polk County. These reactions have been preserved and will be returned to the school officials for their use and information. Many excellent suggestions are made.

In order to provide the reader of this report with something of the flavor of these reactions, a few are quoted verbatim here. Parenthesis indicates the plan chosen.

Parents of Senior High Pupils

(Plan I) Children should not be able to start or graduate at a younger age because children would be too young to graduate at the age of 16 or 17 years. It is hard enough on individuals now meeting the challenging situations of college life or the business world.

(Plan II) Have parents bear the cost instead of the school board.

(Plan II) We feel this is the best plan. Children are being pushed enough.

(Plan II) I like the enrichment courses included in this plan and at no cost to parents unless of course it would increase our taxes greatly.

(Plan III) This plan is superior to the present mainly because of summer programs operated without cost to parents.

(Plan III) I think it is rediculous for a student to have to retake a whole year just because he may not do well in one subject. Plan III is just what we need to correct this fallacy.

(Plan III) I think that if a student knows that he will be required to miss some of his summer vacation for a failing grade, he will think twice about failing at all.

(Plan III) We are opposed to speeding up the elementary and secondary school age. The summer session for the unpromoted students appears as a step in the right direction toward cutting costs of potential dropouts. Definitely avoid any plan that will lower the age that a student graduates from a secondary school. Avoid staggered vacations, particularly in the elementary school where students from the same family could completely disrupt any vacation or normal routine.

(Plan III) I believe it would be better for students to graduate with his own class. I believe there would be less dropouts this way. There would also be a saving to tax payers. I believe this program could be

a wonderful thing for the slower student. It could help him or her to graduate with their regular class.

(Plan II) I do not feel that our children should get out of school earlier than the age of 18. I appreciate the fact that our school board is aware of this "do nothing three months" and I want to use our facilities year round.

(Plan III) I do not believe students should graduate any younger than under the present system. Those students who are negligent of their grades would be more conscientious if made to go to summer school for failure. In the quarter or trimester plans, the family life problems have to be considered, as most families are not a one child family. Here is a big problem of scheduling. Most fathers cannot vacation at a time that fits the school system. At the present time I do not feel that our society is ready for either of these programs.

(Plan III) This plan offers some relief for the financial situation with less interference in normal life and family vacation plans. It would offer a strong incentive for better school work on the part of the students trying to avoid loss of their summer vacation. In general, I think it is a mistake to try to put a year-round system in operation in Florida. This is one state where family vacation plans usually involve the summer. We don't want to go North in the winter. Also school spirit, activities, and social life would be interrupted by any plan that would put a quarter or third of the students out of action during what should be the normal school year. I am strongly against Plans IV and VII involving risky calendar tinkering.

(Plan IV) I think it would be best because the kids could have a vacation during different times of the year other than the summer. The schools should be air conditioned.

(Plan V) I believe that the Junior College should be included at high school, or at least that United States education should be equal to 14 years that we are now spending. This plan would make it possible.

(Plan V) This plan worked very well in England for many years—would stop many of the dropouts in high school where students seem to lose interest—would also help medical students to practice sooner.

(Plan VII) I feel this program should be better than the present program. For one thing, students lose a great deal in study habits in three months of continuous vacation and time is wasted particularly in the elementary grades in re-establishing same. It seems to me that it is a great waste for schools to remain empty for three months a year and then be so over crowded for the school term. This plan would relieve this situation.

(Plan VII) Three months of vacation during the summer is too long. The students waste too much time in the fall reviewing and getting back into steady routine. I believe students should begin first grade at age seven. I also believe kindergarten should be part of the public school education. If school is continued for most of the year they should be air conditioned. I do not feel the students are ready for college at 17. Why can't they have additional courses so they have a more rounded education.

Parents of Junior High Pupils

(Plan I) I like the present set-up and think the children should have time off as they do presently.

(Plan I) It is too tiring on a child to go to school 12 months. It is hard enough to get them to go the way it is.

(Plan II) This plan to me has the least amount of pressure on the student and teachers. We want and need education of the higher quality but not at the expense of their nervous and emotional stability. So often students finish college without purpose in their lives. Are we trying to push too much in too short a period?

(Plan III) I think it goes a long way toward solving the dropout problem.

(Plan III) Speeding up education to graduate students earlier is undesirable in my opinion. Everybody today seems to want to push them ahead too fast.

(Plan III) A minimum of expenditure and organization. The best method of dropout elimination. That summer school programs include primary grades of the elementary school, reading consultants and specialists be appointed to set up standards of excellence especially for elementary children.

(Plan III) Graduation two years early is assinine when children are breaking under pressure they encounter at present age level. What do the colleges who have to take these early graduates think?

(Plan III) The only plan that seems to save in operating expenses and classrooms without year round continuous study and graduating at an earlier age, neither of which I approve. I do not think that children need the added pressure of year round continuous study. I do not think they are psychologically or physically prepared or ready for college or work at an earlier age, even one year.

(Plan III) Provides for academic opportunity to correct failure and some punitive aspects for inadequate performance. Does not interfere with traditional summer opportunities for recreation, family activity, travel, etc. for students who do adequate work. I am unable to accept the wisdom or advantages of having year round academic program at this level of education as far as the student is concerned. Some advantages to school system, teachers, and tax payers may be present.

(Plan III) I like summer vacation for all students at the same time and dislike possible later starting age.

(Plan III) I see no reason for children to graduate from school when they are 15 or 16 years old. I think summer school is fine but in the past has been too expensive for ones who really need it.

(Plan III) Would make it possible for some slow students to avoid losing a year. I think the summers are too hot for effective study in un-air-conditioned classrooms.

(Plan V) This seems to be best use of buildings and teachers. Plans IV and VI would impose undue hardships on families. Three quarters of families would run into impossible vacation arrangements.

(Plan V) Students tire of the present lengthy summer vacation. Six weeks is sufficient. All students are in school at the same time. Plans IV and VI are weak in this respect. The needs of our present society require that a student be able to progress through school in a shorter

period of time. So much to learn—need earlier start in college for capable students. The staggered plans are very weak, not practical or realistic. Students out of school would be tempted to visit friends in attendance in school. It would also be impossible to get agreement among parents and students as to the quarter or trimester to be out of school.

(Plan V) I think starting at seven years and graduating at 17 years for the average child would be fine. Those going to college get through while they are a year younger which would be better.

(Plan VII) I am against three months vacation. They are too long and a waste of the child's time.

(Plan VII) Providing students to graduate one year early could create social adjustment problems for the student.

Parents of Elementary Children

(Plan I) I feel that very few children, especially elementary children who have failed cannot make up nine months work in six or eight weeks. They are already tired after nine months and without air conditioning it is simply too hot to concentrate on books. Teachers have worked with children for nine months and need a rest. Twelve months is too much to have to work continuously with a room of children.

(Plan II) This is on a voluntary basis giving those the choice who badly need a break for things beyond control. Parents and children who volunteer are more anxious to make up the lack of non-promotion. Children are more apt to apply themselves. I am in definite agreement for a summer program. I feel this gives those an opportunity that are in great need of more training and study. I feel children need time away from school to rest as it is rather that continuous plan being flexible not knowing when your child would be enrolled.

(Plan II) I feel that the school facilities should be definitely put to use in the summer months but that continuous study would not be advantageous at this time.

(Plan II) As fast as the children are being pushed ahead in school now, I feel that any further speed-up would be a mistake as the normal child is progressing faster now than the child ten years ago. The slow learner would be left further and further behind and I feel that we owe them something more than that.

(Plan III) I don't like the step-up continuous study plans especially for elementary schools because it might prove too exhausting, especially with no air-conditioning for the children. I don't like the staggered vacation plans because it might prove unsatisfactory for parents with children getting winter, spring, or fall vacations.

(Plan III) This would be of value to children who needed extra work at a given level. The other plans seem to be in a great rush to get children through without thought as to the maturity level.

(Plan III) It does something to a child emotionally to be not promoted but held back with others not of his age group. In summer sessions he would probably be in a smaller group, get more attention, and probably be able to be promoted with his class at the end of the summer session. I believe this would have to be compulsory to work. I realize these

trimester plans are for the purpose of making the school classes we have to be used to the fullest advantage and cut down cost of more building but my reaction is how hard it would be on parents who have several children going to school at different times all year round.

(Plan III) This plan would be a first step in raising our schools to a high standard which would prove good for Polk County as well as Florida.

(Plan III) I am very definitely against any method that would cause children to graduate any earlier than at present. I graduated at 16 and I don't think it is wise. Children are rushed out of homes too soon this day and time.

(Plan III) This plan would mean more to a child who had not been promoted in one or more grades of school. It might make a difference in the number of dropouts we have at the end of each school year.

(Plan III) I like the part where a child is compelled to go if he has failed. Then he can make up what he failed and go on to the next grade.

(Plan III) Would cost tax payers less. Chance of failure to be made up and smarter ones could graduate earlier. This is good thinking on the part of the Polk County Board of Public Instruction.

(Plan III) Students not promoted should be required to attend summer session. The summer program would mean a greater chance for borderline students not becoming failures later. This plan would work only if each city had its own summer program.

(Plan IV) I think Plan IV would result in great savings in building costs because the school buildings would be used one-third more. Also teachers would be employed year round and could be paid more.

(Plan V) Children forget subject matter and study habits during three months summer vacation and a six weeks summer vacation would be long enough for relaxation, sports, and so forth.

(Plan V) I believe Plan V would enable students to gain more education by being in school more days during the year. I don't think we need 3 months summer vacation.

(Plan VII) I favor this for maximum utilization of school facilities. The two weeks Christmas vacation and five weeks summer vacation seem to be more than enough. As for Plan V, eleven weeks per quarter seems to be insufficient to cover a subject and would necessitate additional paper work compared to Plan VII.

Teachers

(Plan I) I am against Plans IV and V because students get out of high school too soon under these plans. I am against Plan II because the student who fails should make some effort to pay for summer school. I would like to see all students in school at the same time.

(Plan I) I think the parents should pay for the childrens summer school. It might make the parents and students appreciate the tax supported free schools more.

(Plan III) Compulsory summer sessions for failures would reduce dropouts, curb failure complexes, raise the level of achievement. Financing by Board of Public Instruction would result in hiring better teachers.

Good teachers have been turned down for summer school because of their high salary.

(Plan III) I think a summer program for interested students should be provided without cost. Requiring failures to attend summer school would help eliminate the problem of keeping students in school year after year because they don't meet graduation requirements. I do not approve of the program that would require teachers to be employed for 12 months. How would we be able to work for advanced degrees or for certificate extension? I can't imagine anything more totally exhausting than 12 months with students. Students and teachers need a respite.

(Plan III) I think compulsory summer school would help solve several problems: lazy students may work better to keep from going to summer school; students who should repeat will be failed instead of passed; students who can't afford summer school are often the ones who need it.

(Plan III) The parents should bear the summer school cost on Plan III.

(Plan III) Plan III would certainly be the ideal situation for retainees, thus enable them to be better prepared for the coming school year, saving for the tax payers good.

Senior High School Pupils

(Plan I) The present summer school system is best. A student should do his best during the school year and not be forced to attend summer school at the tax payers expense.

(Plan I) A lot of high school kids work in the summer but if they had to go to school they wouldn't have time to work. I think 180 days of school is enough.

(Plan I) During the summer months the kids don't do their best. Their minds are set on getting outdoors.

(Plan II) Plans I and II are both good but the others are impossible. You can't expect students to work the year round or separate them from their friends. I also think if we got to go to college two years earlier we would be much too immature.

(Plan II) I think it is nice to know that someone is trying to better our school program and give the student a selection of plans so he may find school more enjoyable and suitable to him.

(Plan III) On your trimester and quarter plans the student would have a hard time choosing their vacation and if they didn't get it they would be disappointed. As for the plans on graduating earlier, as it is we graduate young enough.

(Plan III) Plans IV, V, VI, and VII seem totally unreasonable to me. They are too radical and would be met by immediate opposition. Furthermore, they are impractical.

(Plan III) I believe that students that fail should have a chance to keep up with their classmates and in many cases the parents of these children cannot afford to send them to summer school.

(Plan III) I think students would work harder during the regular school year if they know they will have to go to summer school if they fail. I do not feel that students should take the summer school to graduate early because most students are mentally ready and they can take more helpful courses by taking 12 years of school.

(Plan III) A year-round school program would never be readily acceptable by students. Much explanation would be needed and some would rebel. Change is needed, yes, but the major needs are for the courses and the quality of our teachers.

(Plan III) I think more students would be able to attend summer school if it didn't cost them and that a student failing a subject should make it up in summer school instead of regular school.

(Plan VI) I chose Plan VI because it would provide smaller classes and better chance for each student to be taught. Also a vacation is necessary and a continuous school program would graduate students too young.

(Plan VI) The trimester plan has worked at the university level and with some adjustment should work on the primary and secondary level.

Junior High Pupils

(Plan I) I don't believe a child should have to go to summer school.

(Plan II) I think we need a chance for a long summer vacation to become more relaxed. I think summer school is a good idea. I think Plans IV, V, VI, and VII are very silly because after almost nine months of straight school you are sick of it. After three months of vacation you are ready to go back to school but you need a good rest period to relax.

(Plan III) I like Plan III because it gives a person who has failed a second chance, and everybody gets out of school at the same time.

(Plan III) I don't like Plans IV-VII and I am sure most of the students and teachers don't especially approve of it either. Most students don't want to attend school that long. Everyone enjoys long summer vacations. The Plans IV-VII do have good points in them and would be helpful to make us graduate sooner but I enjoy school but not for that long.

(Plan III) Some of these plans I don't like because I don't like to be on vacation when my friends are in school. It would be very hard to arrange everybody's friends so that they could be on vacation at the same time.

(Plan III) I think all the plans are good and the continuous study would be good in some cases but kids look forward to summer. Some couldn't keep a summer job which helps them earn money for college.

(Plan III) I chose Plan III because I do think it would cut down on cost. I also think that in the long run it would mean many more students graduating from high school.

(Plan III) I think there should be a change but not such a great change at one time. Friends would be separated and confusion would start in the school system.

(Plan IV) This plan would reduce the size of the classrooms considerably. This would give the students more and better instruction.

(Plan V) It would eliminate the long summer vacation in which most students tend to forget a lot of material and would eliminate the need to review which can take up four weeks of the first six weeks.

(Plan V) It would help because you would get out of school two years earlier and make way for more students.

CONCLUSIONS

The evidence presented in this study leads to the following conclusions.

1. There has been a wide interest in all-year schools and extended school terms since the beginning of the 20th century, and this interest is increasing.

2. Both the lay public and professional educators are questioning the wisdom of operating schools only for 175 or 180 days per year.

3. No plan of staggering the school term where part of the children are on vacation all the time and part in school all the time, will save money. Such plans also are likely to lower the quality of education. Plans of this type also encounter strenuous parental opposition and involve school authorities in enormous administrative difficulties. Wherever such plans have been tried, they have been abandoned.

4. The only feasible all-year school plans yet developed for reducing school costs involve all the pupils attending school for an extended school year and the acceleration of pupils in order to reduce enrollment.

5. Any type of all-year operation of schools will involve providing air-conditioning in all school plans in Polk County. It is quite possible that the public in the future will demand that all school plants be air conditioned even if the present school program is continued without change.

6. Any type of all-year school or summer program must be provided for by taxation if large numbers of pupils avail themselves of the additional opportunities provided. Fee programs are attended only by a small percent of the student body.

7. If the Board of Public Instruction of Polk County decides to make better use of its school plants and school personnel than is at present practiced, and the Board also wishes to adopt a plan which will not involve a major change in curriculum or administrative organization, it is recommended that the Board adopt either Plan II or Plan III described in this report. The adoption of either Plan II or Plan III should also make some im-

provement of the quality of the educational program in Polk County. The adoption of Plan II or Plan III will involve an immediate increase in school expenditures of from 5½ to 6 percent annually but a considerable part of this increase would be offset by a reduction in the cost of teaching repeaters. The laws of the State would have to be amended before Polk County Board of Public Instruction could make school attendance mandatory during the summertime for students who had failed their work during the regular school term. If either Plan II or III is adopted, a director of summer programs on a continuing basis should be appointed.

8. If the Board of Public Instruction of Polk County decides to make better use of its school plants and school personnel, than is at present practiced, and the Board also is willing to adopt a plan which will involve major changes in the curriculum, enrichment, and acceleration policies, it is recommended that the Board adopt Plan VIII. This Plan will provide the opportunity for a substantial improvement in the quality of education. During the first five years of its operation it would require an annual increase of approximately 11 percent in school costs. However, after five years, there would be no increase in school costs and probably a slight reduction. The Minimum Foundation Program Law and the Law Providing for the Allocation of the Sales Tax Trust Fund would have to be amended in order to permit the County to adopt Plan VIII without financial penalty. If Plan VIII is adopted, the Board may decided to try it first in one area of the County. The Board would probably be able to obtain a grant from a foundation or the U. S. Office of Education in order to experiment with this plan.

The questionnaire returns from parents indicated some opposition to acceleration of pupils. However, if the acceleration of pupils were accompanied by program enrichment, and if immature high school graduates were provided excellent junior college facilities in Polk County, it is possible that the parents might not object to the amount of acceleration provided under Plan VIII.

9. Since Plan VIII would raise the general quality of education in the State, and since, after five years, the adoption of this Plan would not increase school costs, the State should provide financial incentives to counties to adopt this Plan. It has

been pointed out that during the first five years Plan VIII would increase school costs approximately 11 percent. The State could provide an incentive for counties to adopt Plan VIII by assuming half of the additional cost of the inauguration of this Plan for five years.

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