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ABSTRACT California; San Diego Schools

This report considers the costs of three types of extendeá school year programs--all modifications of the quarter system--and compares these costs to the regular program. Compared against the traditional approach are: (1) a quarter system in which students attend three quirters a year and are off one quarter, meaning that 75\% of all students are in school at any one time; (2) a quarter program in which attendance for all is mandatory, fall through spring, with summer attendance being optional; and (3) a quarter program in which attendance for all students is manadatory, fall through spring, except for those students attending the optional summer quarter. Conclusions indicate that by extending the school year, space can be saved and capital expenditures postponed. However, plans that bring about classroom savings cost more to operate, and within a few years all capital savings are eaten up in operating costs. A review of the literature, facility use information, classroom data, and attendance calendars are included. (suthor/DN)






EI:IANCIAL IMPLICATIONS OF

THE EXTENDED SCHOOL YEAR

Administrative Research Department San Diego Unified School District

May 21, 1970

## INTRODUCTION

This report has been prepared in answer to a request made by the Board of Education for a study of the twelve-month school year.

During the course of the study periodic reports were made to a committee which was established to offer suggestions and to provide direction to the research staff.

Financial implications were given first consideration in this study. Oiher considerations such as curriculum, acceleration, and articulation, as well as the broad question of acceptance by pupils, parents, and teachers would need to be studied only if extending the school year appeared to be financially feasible.

Eighty to ninety school districts throughout the United States are howing renewed interest in attendance schemes which appear to offer economies which would counteract the steady increases in the cost of education.

The San Diego Unified School District has periodically studied the relationships that exist between the length of the school year and the cost of the San Diego program.

The report that follows again examines the financial implications of the extended school year. Using the cost and the income data for the school year 1968-69, this analysis is probably more detailed than was the case in earlier studies.

The essential elements of the report are contained in the financial tables which are presented. A review of the literature, facility use information, classroom data, and attendance calendars are included.
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## EXTENDED SCHOOL YEAR

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SAN DIEGO CITY SCHOOLS
Administrative Research Department

EXTENDED SCHOOL YEAR

Would extending the school year save money? According to research the answer is yes and no. Some money can be saved. But, on the other hand, additional funds must be spent, State apportionment is lost, and the net result is that loss exceeds savings.

In an attempt to learn the financial facts which accompany extended school year plans, the Administrative Research Department compared San Diego's existing program to three possible alternative programs.

The existing program consists of an academic year of approximately 180 instruction days with a 30 -day elementary and a 35 -day secondary summer program added.

The alternative proposals are referred to as Proposals A, B, and B-Modified:
Proposal A is a program consisting of approximately 240 instruction days per year divided into four quarters of 60 days. Students are permitted to attend three of the four quarters or 180 days per year. Seventy-five percent of the students and teachers are present during each quarter; \(25 \%\) of students and teachers are on vacation each quarter. Summer school programs are not provided in this proposal. Implementation of this proposal depends on State approval.

Proposal \(B\) is a program consisting of approximately 235 instruction days divided into three quarters of 60 days each and an optional quarter of 55 days. Attendance during the fall, winter, and spring quarters is mandatory; attendance during the summer quarter is optional. Credits earned in any quarter are of equal value insofar as requirements for graduation are concerned. Summer school programs are not provided in this proposal. Education enrichment or student acceleration is made possible through attendance during the optional quarter.

Proposal B-Modified is a program consisting of approximately 235 instruction days divided into three quarters of 60 days and an optional quarter of 55 days. Attendance during the fall, winter, and spring quarters is mandatory except for those students who attend the optional summer quarter. For purposes of this study, the assumption is made that \(30 \%\) of the students elect to attend the summer quarter and to vacation one of the three remaining quarters. It is further assumed that \(10 \%\) of the summer enrollment could be persuaded to vacation each of the other quarters. This assumption results in a \(10 \%\) enrollment reduction during each of the remaining quarters. Summer school programs are not provided in this proposal although a concurrent summer program is not incompatible.

A comparison between the traditional program and the extended-year program Proposal A reveals these financial facts--when the known variables are used as the basis for comparison, Proposal A has a higher net cost than the traditional program.

Six hundred ninety-eight portable classrooms would become available if Proposal A were to replace the traditional program. This result would permit the postponement of capital expenditure to a limited degree. The released classrooms wouid be scattered throughout the school district. Students and classrooms would have to be brought together. Costs incurred in the relocation of portables or in transporting students would reduce the amount of capital outlay saved by the implementation of Proposal A.

If the 698 portable classrooms were valued at \(\$ 15\) thousand each, their combined value would represent \(\$ 10,420,000\). The excess cost of Proposal \(A\) would be \(\$ 1,131,939\). In a period of about eight years, the annual cost of Proposal A would equal the savings. At that point the district would be without the school buildings but would be in an extended year program in which excess cost would continue indefinitely.

Adoption of Proposal B by the district would result in an excess annual cost of over three and three-quarter million dollars. Capital expenditures would remain unaffected since the use of school buildings would be comparable in Proposal \(B\) and the existing program.

Adoption of Proposal B-Modified would result in an excess annual cost of \(\$ 1,800,000\). Three hundred fifteen portable classrooms would become available under this proposal. The valuation of released classrooms would be equalled by the annual excess cost of the program in less than three years.

Since Proposal A is the type of extended day program which is most frequently mentioned in the popular media, its featuras bear repetition. The plan is based upon compulsory rotation of pupils and teachers. Three fourths of existing classrooms would be utilized for the entire year. Summer school would be eliminated. Loss of income would exceed savings.

Replacement of the traditional program by Proposal A would result in a more costly program which provided less educational opportunity for children. Further, the increased annual cost of Proposal A would in a few years negate savings in capital outlay.

Additional legislation would probably be required to insure reimbursement by the State for an academic year which was extended over ad2-month period.

Proposal \(B\) would prove to be an expensive adoption according to the findings of this study. Primarily, it would replace the present summer program with a full quarter of instruction. Its high cost would be justified in terms of program enrichment and student acceleration.

Proposal B-Modified would eliminate the existing summer school program and substitute an optional summer quarter for approximately \(30 \%\) of the students. These students would elect to attend this quarter in place of one of the remaining quarters. The result would be a small savings in classroom space coupled with an increased annual cost.

Additional legislation would probably be required to insure reimbursement by the State for an academic year which extended over a 12 -month period.
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EXTENDED SCHOOL YEAR (Cont.)
Summary. We find that by extending the school year, space can be saved;
capital expenditure can be postponed. However, plans which bring about savings.
in classrooms cost more. This means that within a few years, the money saved
on buildings has bcen spent for operating purposes. The money is gone. The
school buildings for which it might have paid have not been built. The excess
spending, nevertheless, continues so long as the extended year remains in
effect.

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\begin{tabular}{|l|c|c|c|}
\hline PROPOSAL "A" & \begin{tabular}{l} 
Portables Released \\
Under Proposal "A"
\end{tabular} & \begin{tabular}{l} 
Cost of Porta- \\
bles Released
\end{tabular} & \begin{tabular}{l} 
Additional Operating \\
Cost per Year \\
Proposal "A"
\end{tabular} \\
\hline ELEMENTARY & 492 & \(\$ 7,380,000\) & \(\$ 539,413\) \\
\hline SECONDARY & 206 & \(\$ 3,090,000\) & \(\$ 592,526\) \\
\hline DISTRICT TOTAL & 698 & \(\$ 10,470,000\) & \(\$ 1,131,939\) \\
\hline
\end{tabular}
TABLE VI
CLASSROOMS FINANCED THROUGH TEMPORARY REDUCTION
IN SPACE REQUIREMENTS RELATED TO INCREASED PROGRAM COSTS

\begin{tabular}{|c|c|c|c|}
\hline  &  & \[
\begin{aligned}
& \infty \\
& \infty \\
& n_{n} \\
& \hat{i} \\
& n \\
& e
\end{aligned}
\] &  \\
\hline  & \[
\begin{aligned}
& Q_{0}^{2} \\
& 0 \\
& 0_{n}^{2} \\
& \underset{\sim}{n}
\end{aligned}
\] & \[
\begin{gathered}
0 \\
0 \\
n \\
2 \\
2 \\
- \\
2
\end{gathered}
\] &  \\
\hline  & N & ¢ & \(\stackrel{n}{n}\) \\
\hline  &  &  &  \\
\hline
\end{tabular}
\[
\begin{aligned}
& \text { Number of porta- } \\
& \text { bles which could } \\
& \text { be purchased } \\
& \text { yearly with an } \\
& \text { amount equal to the } \\
& \text { the annual cost of } \\
& \text { Proposal "B" } \\
& \text { Modified. }
\end{aligned}
\]

\section*{TYPICAL USE OF FACILITIES AT PRESENT TIME}

The uses shown below are over and above the daily use made of school buildings by the \(K-12\) program during the regular year.

Educational
\begin{tabular}{|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Extended Day} & \multicolumn{2}{|r|}{Academic Year} & \multicolumn{2}{|c|}{Summer} \\
\hline & Schools Used & Total No. Class rooms Used & Schools Used & Total No. Class rooms Used \\
\hline & & & & \\
\hline Secondary & 5 & 9 & 1 & 12 \\
\hline Elementary & 5 & 3 & & \\
\hline \multicolumn{5}{|l|}{In-service Education} \\
\hline Secondary & 19 & 85 & 3 & 23 \\
\hline Elementary & 22 & 73 & 6 & 29 \\
\hline \multicolumn{5}{|l|}{Summer School} \\
\hline Secondary & & & 30 & 861 \\
\hline Elementary & & & 58 & 535 \\
\hline \multicolumn{5}{|l|}{Children Centers} \\
\hline Elementary
(12 hours daily) & 9 & 23 & 9 & 23 \\
\hline \multicolumn{5}{|l|}{Adult Education} \\
\hline Secondary & 16 & 272 & 12 & 135 \\
\hline Elementary & 24 & 52 & 14 & 6 \\
\hline Adult Centers & 3 & 30 & 3 & 30 \\
\hline
\end{tabular}

\section*{Community Service}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Totals & Rec. Dept. & PTA & \begin{tabular}{l}
Boy \\
Cub
\end{tabular} & Scouts Scouts & Youth & Gov't & Civic. Groups & . & Sch. Assn. & \[
\begin{aligned}
& \text { Non-. } \\
& \text { Coll. }
\end{aligned}
\] & Com. \\
\hline 55,144 & 45,088 & 1,114 & & 582 & 779 & 190 & 130 & 92 & 103 & ', \(\mathbf{7}\), \({ }^{\text {a }}\) & 27 \\
\hline
\end{tabular}
SAN DIEGO UNIFIED SCHOOL DISTRICT
Business Division
USE OF SCHOOL FACILITIES BY COMMUNITY GROUPS - 1968-69
Examples of Groups in Various Headings
Youth
Girl Scouts
Y-Indian Guides
Campfire Girls
mment
 Town Councils
Community Improvement Associations
Neighborhood groups

School Association
Classified Employees Association
Administrators Association
San Diego Teachers Association

Scouts - Troop and Pack meetings

SAN DIEGO CITY SCHOOLS Administrative Research Department

EXTENDED SCHOOL YEAR

Attendance Calendars

School attendance calendars may be designed in a multitude of ways．San Diego for many years hes adopted an attendance calendar of approximately 38 weeks in length which for instruction purposes has been divided into two semesters，or cycles，of 19 weeks each．

Quarters，or cycles，of eight，nine，or ten weeks are used as units of time for instruction in some places；t－imesters，consisting of 12 －weck instructional time cycles，are currently in effect in other school districts．

Whether the school attendance calendar is resigned to accomodate semester， quarter，or trimester cycles of instruction time，conventionally，the total number of days of instruction within the academic year tends to approximate 180 days．

In San Diego，and in the typical school district elsewhere，the summer school period of instruction is looked upon as separate and distinct from the academic year and usually is not considered to be an extension of the academic year．

The extended school year，by definition，requires that either the days of instruction（180）within the acadenic year be spaced over a period of time which exceeds the normal academic year of 38 weeks or the number of days of instruction be increased beyond the 180 days．

The school attendance calendars in this study：
Serve as illustrations of possible changes from the semester calendar in order to establish an extended school year．

Are designed to fit the quarter arrangement of instruction cycles．
Afford a degree of compatibility with the semester arrangement．
Provide for extended use of the facilities of the district．
Illustration \(⿰ ㇒ ⿻ 二 丨 冂 刂 y\) has two advantages：（1）the cycles of instruction are to remain relatively free from extended holiday interruption and（2）the cycles of instruction are to terminate immediately prior to the traditional Christmas and spring vacation periods．

Illustration \(\exists^{2}\) is designed to equalize the number of days of instruction within each quarter（60），while permitting the academic year to start and terminate at dates compatible to the semester calendar．Christmas and Easter vacation periods in this design would fall within quarters and would，therefore， cause extended interruption of instruction．
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline SCMOOL & \multicolumn{6}{|l|}{FIR STMEEK} & \multicolumn{6}{|l|}{SECOND WEEK} & \multicolumn{6}{|l|}{THIRO WEEK} & \multicolumn{6}{|l|}{FOURTA WEEN} & \multicolumn{6}{|l|}{FIFTH NEEK} \\
\hline ONT & M & 7 & \(\cdots\) & 1 & E & 5 & M & 7 & \(\cdots\) & \(I\) & \(\beta\) & E & M & \(T\) & \(w\) & \(T\) & E & 5 & M & 7 & \(w\) & T & F & \(\leq\) & M & T & \(\cdots\) & \(T\) & \(F\) & 5 \\
\hline FIRst & & 1 & 2 & 3 & 4 & & 7 & 8 & & 10 & 11 & & 14 & 15 & 16 & 17 & 18 & & 21. & 22 & 23 & 24 & 25 & & 28 & 29 & 30 & & & \\
\hline Scomb & & & & 1 & 2 & & 5 & 6 & 7 & 8 & 9 & & 12 & 13 & 14 & 15 & 16 & & 19 & 20 & 21 & 22 & 23 & & 26 & 27 & 28 & 29 & 30 & \\
\hline TMRD & 2 & 3 & 4 & 5 & 6 & & 9 & 10 & 11 & 12 & 13 & & 16 & 17 & 18 & 19 & 20 & & 23 & 24 & 25 & & & & 30 & & & & & \\
\hline POUMTM & & 1 & 2 & 3 & 4 & & 7 & 8 & 9 & 10 & 11 & & 14 & 15 & 16 & 17 & 18 & & 21 & 22 & 23 & 24 & 25 & & 28 & 29 & 30 & 31 & & \\
\hline FTPN & & & & & & & 4 & 5 & 6 & 7 & 8 & & 11 & 12 & 13 & 14 & 15 & & 18 & 19 & 20 & 21 & 22 & & 25 & 26 & 27 & 28 & 29 & \\
\hline SNM & I & 2 & 3 & 4 & 5 & & 8 & 9 & 10 & 11 & & & & 16 & 17 & 18 & 19 & & 22 & 23 & 24 & 25 & 26 & & & & & & & \\
\hline SEVENTM & 1 & 2 & 3 & 4 & 5 & & 8 & 9 & 10 & 11 & 12 & & 15 & 16 & 17 & 18 & 19 & & 22 & 23 & 24 & 25 & 26 & & 29 & 30 & 31 & & & \\
\hline GGMTM & & & & 1 & 2 & & 5 & 6 & 7 & 8 & 9 & & 12 & 13 & 14 & 15 & 16 & & 19 & 20 & 21 & 22 & 23 & & 26 & 27 & 28 & 29 & 30 & \\
\hline NT & 3 & 4 & 5 & 6 & 7 & & 10 & 11 & 12 & 13 & 14 & & 17 & 18 & 19 & 20 & 21 & & 24 & 25 & 26 & 27 & 28 & & 1 & & & & & \\
\hline TENTH & & 1 & 2 & 3 & 4 & & 7 & 8 & 9 & 10 & 11 & & 14 & 15 & 16 & 17 & 18 & & 21 & 22 & 23 & 24 & 25 & & 28 & 29 & 30 & & & \\
\hline LSVEMTM & & & & 1 & 2 & & & 6 & 7 & 8 & 9 & & 12 & 13 & 14 & 15 & 16 & & 19 & 20 & 21 & 22 & 23 & & 26 & 27 & 28 & 29 & 30 & \\
\hline WRLTTM & 2 & 3 & 4 & 5 & 6 & & 9 & 10 & 11 & 12 & 13 & & 16 & 17 & 18 & 19 & 20 & & 23 & 24 & 25 & 26 & 27 & & 30 & 31 & & & & \\
\hline TMIDEENTH & & & 1 & 2 & 3 & & & 7 & 8 & & 10 & & 13 & 14 & 15 & 16 & 17 & & 20 & 21 & 22 & 23 & 24 & & 27 & 28 & 29 & 30 & & \\
\hline
\end{tabular}

Exclusive of Thanksgiving Vacation (2 days) Christmas Vacation (3 weeks) Spring Vacation (1 week)

Vacation periods do not interrupt class schedules.

177
December 18



College Quarter \(=\) about 48 days of instruction.
September 23
January 11
April 12
July 6
Fall Quarter
Winter Quarter
Spring Quarter
Summer Quarter

\begin{abstract}
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\end{abstract}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{SCHOOL MONTH} & \multicolumn{6}{|l|}{FIRST WEEK} & \multicolumn{6}{|l|}{SECOND WEEK} & \multicolumn{6}{|l|}{THIRD WEEK} & \multicolumn{6}{|l|}{FOURTH WEEK} & \multicolumn{6}{|l|}{FIFTH WEEK} \\
\hline & M & 7 & W & 1 & \(\beta\) & 5 & M & 7 & M & 1 & \(E\) & E & M & T & w] & 7 & F & 5 & M & 1 & w & + & F & 1 & M & 7 & \(\cdots\) & 7 & \(F\) & 3 \\
\hline FIRST & & 1 & 2 & 3 & 4 & & 7 & 8 & 9 & 10 & 11 & & 14 & 15 & 16 & 17 & 18 & & 21 & 22 & 23 & 24 & 25 & & 28 & 29 & 30 & & & \\
\hline SECOND & & & & 1 & 2 & & 5 & 6 & 7 & 8 & 9 & & 12 & 13 & 14 & 15 & 16 & & 19 & 20 & 21 & 22 & 23 & & 26 & 27 & 28 & 29 & 30 & \\
\hline TAIRD & 2 & 3 & 4 & 5 & 6 & & 9 & 10 & \(11)\) & 12 & 13 & & 16 & 17 & 18 & 19 & 20 & & 23 & 24 & 25 & 26 & 27 & & 30 & & & & & \\
\hline POURTM & & 1 & 2 & 3 & 4 & & 7 & 8 & 9 & 10 & 11 & & 14 & 15 & 16 & 17 & 18 & & 21 & 22 & 23 & 24 & 25 & & 28 & 29 & 30 & 31 & & \\
\hline FIFTH & & & & & 1 & & 4 & 5 & 6 & 7 & 8 & & 11 & 12 & 13 & 14 & 15 & & 18 & 19 & 20 & 21 & 22 & & 25 & 26 & 27 & 28 & 29 & \\
\hline SAXTH & 1 & 2 & 3 & 4 & 5 & & 8 & 9 & 10 & 11 & 12 & & 15 & 16 & 17 & 18 & 19 & & 22 & 23 & 24 & 25 & 26 & & & & & & & \\
\hline SEVENTH & 1 & 2 & 3 & 4 & 5 & & 8 & 9 & 10 & 11 & 12 & & 15 & 16 & 17 & 18 & 19 & & 22 & 23 & 24 & 25 & 26 & & 29 & 30 & 31 & & & \\
\hline EIGNTH & & & & 1 & 2 & & 5 & 6 & 7 & 8 & 9 & & 12 & 13 & 14 & 15 & 16 & & 19 & 20 & 21 & 22 & 23 & & 26 & 27 & 28 & 29 & 30 & \\
\hline NINTH & 3 & 4 & 5 & 6 & 7 & & 10 & 11 & 12 & 13 & 14 & & 17 & 18 & 19 & 20 & 21 & & 24 & 25 & 26 & 27 & 28 & & 31 & & & & & \\
\hline TENTH & & 1 & 2 & 3 & 4 & & 7 & 8 & 9 & 10 & 11 & & 14 & 15 & 16 & 17 & 18 & & 21 & 22 & 23 & 24 & 25 & & 28 & 29 & 30 & & & \\
\hline ELEVENTH & & & & 1 & 2 & & \[
(5)
\] & , 6 & 7 & 8 & 9 & & 12 & 13 & 14 & 15 & 16 & & 19 & 20 & 21 & 22 & 23 & & 26 & 27 & 28 & 29 & 30 & \\
\hline TWELFTH & 2 & 3 & 4 & 5 & 6 & & & 10 & 11 & 12 & 13 & & 16 & 17 & 18 & 19 & 20 & & 23 & 24 & 25 & 26 & 27 & & 30 & 31 & & & & \\
\hline TMIRTEENTH & & & 1 & 2 & 3 & & 6 & 7 & 8 & 9 & 10 & & 13 & 14 & 15 & 16 & 17 & & 20 & 21 & 22 & 23 & 24 & & 27 & 28 & 29 & 30 & & \\
\hline
\end{tabular}

Excluding 10 days at Christmas
Excluding 5 days at Easter
in \begin{tabular}{lll}
\(\infty\) & 0 & 0 \\
\(n\) & \(n\) \\
\hline
\end{tabular}
\(\stackrel{N}{N}\)

December 4
March 12
June 11
September 3

September 14
December 7
March 15
June 14

Fall Quarter
Winter Quarter
Spring Quarter
Summer Quarter

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\(5 / 4 / 70\)

SAN DIEGO CITY SCHOOLS Administrative Research Department

EXTENDED SCHOOI, YEAR
Report Limitations

The report is based upon data taken from the budget summaries and personnel staff reports for the school year 1968-69.

The term "income" as used in the report refers only to the amount of money received from the State in the category of principal apportionment. Eliminated are revenue from local sources, special apportionment, and Federal sources.

The term "cost" as used in the report refers only to current expense of education. Eliminated are prorated overhead costs, transportation costs, and fixed charges.

Increases in the costs of extended year proposals shown in the report are primarily attributable to changes in administrative, student service, and clerical positions from 10- to 12 -month assignments. These cost increases were determined after the number of such positions were reduced due to decreases in enrollments.

The estimated cost of bungalow relocation used in the report was \(\$ 2,000\).
The cost of pupil transportation used in the report was \(\$ 8\) per month.
The estimated value of portable bungalows used in the report was \(\$ 15\) thousand.
The teacher salary amounts used in the report for the optional quarter costs were determined by multiplying the weekly salary by 11 weeks. The average annual salary of \(\$ 11\) thousand was used.

The extended year proposals described in the report which would represent an extension of the summer program could probably be implemented under existing State law. The extended year proposals which would represent an extension of the academic year or which provide for staggered attendance could probably be implemented only through new legislation.

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SAN DIEGO CITY SCHOOLS \\ Administrative Research Department
}

\section*{EXTENDED SCHOOL YEAR LITERATURE}

\section*{BACKGROUND}

The length of the school year and the corresponding length of the vacation period have varied from one section of the country to another throughout the years. In the early days of our nation's history, when life was predominantly rural, the length of the school year was based on the requirements of an agricul ural economy. Because children were needed for farm work during the late spring, summer, and early fall, the school year was relatively short, and most pupils attended school during the winter months only. Very young children attended special summer schools because they were too young for farm work and because of poor road conditions in the winter months. Teachers were not employed for the full 12 -month period. Generally, men taught during the winter, and women taught during the summer if school was conducted then.

During the years prior to 1840, city schools were conducted nearly all year. Buffalo operated its school system for 12 months; Baltimore and Cincinnati, for 11 months; New York, for 49 weeks; and Chicago, for 48 weeks. The school year usually was divided into four terms of 12 weeks each, with a one-week vacation between terms. Gradually this pattern was altered to provide a one-week vacation at Christmas, another at Easter, and two during the summer.

For 75 years following 1840, cities gradually shortened the school year and increased the vacation period. At the same time, rural areas gradually lengthened the school year, until it approximated the shortened year in the cities. By 1915, most of the nation's schools operated on a nine-month school year, although there were slight variations from one section of the country to another. Many comnunities operated a vacation school, n forerunner of the present sumer school, but this sessir: was not considered a part of the regular school year. The vacation srkuol first provided only recreational activities, with academic courses offered in later years.

One plan for a rescheduled school year--the all-year school or rotating fourquarter plan-has been discussed and debated rather intensely in recent years. It was advocated during World War I and World War II, and during the years immediately following. A survey of literature indicates that the rotating fourquarter plan was widely considered and debated between 1924 and 1931, and again between 1947 and 1953, times of growing enrollments and rising school construction costs.

Plans providing a longer school year or yearwround utilization of the school are once again of interest. The desire for improved educational opportunities has been added to the economy objective in sustaining interest in the various plans.

In spite of advantages claimed for rescheduled school year plans, experimentation and adoption has not been widespread. Surveys have generally shown major changes in the school year to be unpopular among teachers, administrators, and parents.

A 1964 national survey asked school administrators if they would favor an allyear school arrangement, with some pupils on vacation each quarter and teachers on duty all year, except for a two- or three-week vacation. Two out of three administrators responded negatively, citing most often as their reason for opposition the teacher's need for an extended vacation.

Approximately three out of four ( 76 percent) parents responding to a survey of reactions to changes in the basic organization of the school year opposed the year-round school arrangement (i.e., the rotating four-quarter plan). Most objected on the grounds that winter is no time for a child's vacation.

Frost reported in 1967 the results of a Gallup poll of parents' opinions on the school ;ear. Nearly 7 in 10 ( 68 percent) parents of school children responding considered a reduction in the summer vacation a poor idea. Among 13 suggested changes in the school year, "reduce summer vacation to four weeks" appealed most to only 4 percent of the respondents.

Sometimes resistance has been community-wide. Bienenstok described an example of resistance to innovation, particularly to rescheduling the school year, in a suburban community in the New York metropolitan area.

A random sample of Polk County, Florida, teachers, parents, and pupils was asked which one of seven plans for rescheduling the school year they favored. Results are given below:
Plan Teachers parents Pupils
\begin{tabular}{|c|c|c|c|}
\hline 1. Present 180-day school year & 16.2\% & 20.1\% & 18.4\% \\
\hline 2. Present program plus voluntery summer session & 17.9 & 23.1 & 31.4 \\
\hline \(\therefore\) Present program plus summer session, voluntary for some, mandatory for students who have failed. & 60.9 & 47.1 & 36.7 \\
\hline 4. Rotating Eour-quarter plan, with one-fourth of enrollment on vacation each quarter. \(\qquad\) & 1.6 & 1.7 & 3.5 \\
\hline 5. Continuous four-quarter, with two years of acceleration in 12 ........ & 1.6 & 4.8 & 4.2 \\
\hline 6. Rotating trimester plan, with onethird of enrollment on vacation each trimester & 0.6 & 1.2 & 3.3 \\
\hline 7. Continuous trimester, with two years of acceleration in 12 ............... & 1.2 & 2.0 & 2.5 \\
\hline
\end{tabular}

Results of this survey showed overwhelming preference for some sort of summer school.

\section*{TRADITIONAL SUMMER-SCHOOL PLAN}

Conducting school during the summer months is quite comnon throughout the country. There have been four main purposes for conducting summer sessions: recreation, make-up, remediation, and enrichment. In recent years, pupil acceleration has also become a goal.

Most summer programs last six or seven weeks. Usually pupil attendance is voluntary, but it has been suggested that attendance be mandatory for those pupils who have failed grades or who require remedial assistance. The summer session may be financed by the school district or by tuition or fees, or by a combination of the two.

The objectives of the summer program are primarily educational, but it has been suggested that economies will be obtained if remedial programs result in fewer pupil failures.

Estimated costs for operating a summer program have ranged from 4 to 5 percent to 17 to 18 percent of the annual budget.

The Florida Educational Research and Developn،ent Council studied the fesibility of adopting two variations of a summer progran in Polk County, Florida. The Council concluded that a completely voluntary, seven-week summer session which offered makeup, enrichment, and acceleration courses without cost to pupils would result in a 5.55 percent increase in net expenditures. A similar program, but compulsory for nonpromoted pupils and voluntary for all others, would result in an estimated 5.70 percent increase in net expenditures.

After studying these and six other school year plans, including the rotating fourquarter, the trimester, and the rotating trimester plans, the Florida Council recommended either of the summer-school plans as best if the school board wished to make better use of the school plant and school personnel without making major changes in curriculum and administrative organization.

Some of the advantages and disadvantages of the summer-school plan may be summarized as follows:

\section*{Advantages}
1. The plan offers increased educational opportunities without requiring major changes in the curriculum and school organization.
2. Retarded pupils have an opportunity for special assistance and training. This will aid their further development and may decrease pupil grade failure, thus saving the cost of reteaching nonpromoted pupils.
3. All pupils may have the benefit of guided leisure time.
4. All pupils may benefit from having an opportunity to take courses not normally offered during the regular school year or courses which might not fit into their regular school year schedules.
5. Teachers may be employed on a year-round basis, thus utilizing' their resources for professional work throughout the year and also improving their economic status.
6. There is little difficulty in maintaining the school physical plant, since the entire plant is not required for summer classes.
7. In most instances, participation in summer school is voluntary and does not interfere with family summer vacations.

\section*{Disadavantages}
1. The summer session increases total educational costs.
2. In most instances the program is optional, and only a small percentage of the school enrollment may choose to participate. Thus, the return on the added investment may be too small to make the procram financially feasible.
3. Parents may be releasing to the school some functions of child training and care which might better be retained in the home.

\section*{ROTATING FOUR-QUARTER PLAN}

For many years, the most prominent all-year school plan was the rotating, or staggered, four-quarter plan. This arrangement divides the school ycar into four equal quarters of approximately 12 weeks each. Each pupil attendi three consecutive quarters and vacations the fourth. Thus, each pupil spends the same amount of time attending school as under the traditional nine-month school year arrangement, but the school is in operation throughout the entire year. Vacation periods are staggered throughout the year, so that at any time, threefourths of the entire student enrollment is attending school and the remaining one-fourth is on vacation. It is generally recommended that pupils enter school in the quarter in which their birth dates fall. For example, if the fall quarter runs from September through November, all pupils born in those months enter first grade in September and continue tn attend classes from fall through spring, and vacation in sumner, throughout their years in school. Most commonly recommended is a 12 -week quarter with one week of vacation between quarters.

The primary objective of the rotating four-quarter plan is economy. Theoretically, this arrangement would save about 25 percent in capital outlay for new buildings by fully utilizing existing facilities. Proponents contend that this plan would also reduce the required teaching force by 25 percent, since only three-fourths of the student enrollment would be in school at any one time. At the same time, it. would increase by approximately 20 percent the annual salaries of those teachers employed for all four quarters.

\section*{Experimentation}

It appears that the rotating four-quarter plan was first put into operation in Bluffton, Indiara, in 1904 (discontinued in 1915). Ten cities reportedly were using the plan by 1923, and the number apparently reached its peak of 13 in 1925. Between 1904 and 1950 , the roteting four-quarter plan was initiated and discontinued in the following cities: Bluffton and Gary, Indiana; Mason City, Iowa; Eveleth, Minnesota; Omaha, Nebraska; Albuquerque, New Mexico; Ardmore and Tulsa, Oklahoma; Ambridge and Aliquippa, Pennsylvania; and Amarillo and E1 Paso, Texas; and in Bayonne, New Jersey, and Minot, North Dakota. By 1950, only Chattanooga, Tennessee, was using the plan, and by 1956 , no cities were known to be operating under the plan.

The Omaha four-quarter plan operated from 1918 until 1940 in Omaha Technical High School. The quarters were originally 12 weeks long, but the summer quarter was shortened to 10 weeks in the 1930 's. The school was reorganized every 12 weeks, and one class was graduated every quarter. It was reported that this frequent school reorganization did not result in time loss. The holding power of the school was increased, and the plan reportedly was popular with parents, teachers, and businessmen.

Two of the better-known experiments were those in Ambridge and Aliquippa, Pennsylvania.

In Aliquippa the plan was adopted in 1928 in order to avoid investment in additional school buildings. Attendance quarters were arbitrarily assigned, but requests for changes.were considered. A new firstagrade section was enrolled each quarter, and there were four promotional dates. Some pupils were allowed to attend all four quarters, but wcre not allowed to accelerate more than one year. Pupils who had failed repeated the quarter vhich they had failed. Quarters overlapped seasons of the year.

Reports of this experiment indicate that the plan was not detrimental to the pupils' achievement. Nor were fears that pupil achievement and attendance would suffer during the summer months confirmed, at least during the first five years of operation. The January-April quarter showed the fewest pupil failures, while the October-January quarter showed the most fa-lures. First-year attendance was highest during the July-October quarter and lowest Juring the OctoberJanuary quarter.

From the standpoint of economy, the experiment was considered successful. Savings on capital outlay for new schools and related savings (aspecially debt service) resulted in an estimated saviag of \(\$ 282,059\) during a seven-year period, according to the superintendent, H . R. Vanderslice.

Vanderslice also explained that since most teachers chose to work 12 months, the school board decided to reduce teachers' salaries by 5 percent. This resulted in a saving of \(\$ 69,200\) during the five-month period, and a saving of \(\$ 96,880\) during the seven-year period.

The disadvantages of the Aliquippa experiment were soon feit. Ancording to Hartsell, the disadvantages were these: (a) Building maintenance and repair without interference with school sessions was virtually impossible. (b) Parents objected to non-summer vacation. (c) Permitting teachers to choose their vacation quarter resulted in a constant changing of classrooms and teachers.
(d) The summer quarter showed a let-down in work by both pupils and teachers. According to another source, in small schools there were often as many as three groups at different points in their grade instruction in one classroom.

Although it took some years to remedy the crisis that had precipitated adoption of the plan, the rotating four-quarter plan in Aliquippa was eventually discontinued. The difficulty in maintaining the physical plant and the increased maintenance costs, which somewhat offset economies, were two major reasons for abardoning it. Additional problems were the difficulty in assigning vacation periods, the increased administrative problems and supervisory tasks, and the increased paperwork. By 1938, Aliquippa had decided to return to the traditional nine-month school year and to construct the facilities required under the former system.

In recent years, che rotating four-quarter plan has been adopted, or seriously considered, in Del Campo High School, California; Atlanta, Georgla; and the state of Delaware.

The Del Campo High School project proposed to divide the school calendar into four quarters of 54-59 days each, with a three-week vacation between the summer and fall quarters. Most pupils were to attend three quarters, hut some would be able to attend all four. The project, backed by \(\$ 145,000\) from the California state legislature, was to have begun in May 1966. At that time, the first summer quarter was postponed a year for lack of student interest. By November 1966, the San Juan School Board had decided to abandon the project entirely, for reasons of insufficient funds, lack of student interest, and poor support from parents.

Contingent upon the nppropriation by the Georgia state legislature of a requested \(\$ 2,000,000\) for this and other pilot projects, high schools in eight metropolitan At lanta school systems will be operating on a four-quarter plan beginning in September 1968. The systems are Atlanta, Clayton County, Cobb County, Decatur, Dekalb County, Fulton County, Gwinnett County, and Marietta. The school year will be divided into ll- or 12 -week quarters, each a full academic terin. Glass periods will remain the same length, but the school day will be extended to 10 periodse student movement will be similar to the college arrangement, with some Saturday classes, some days when students have no classes, and students coming to and leaving school at various times during the day. Reportedly, during the first year of operation, students will be required to attend all of the first three quarters. The fourth quarter will be optional, and studente may then choose which two of the next three quarters they wish to attend. Students may also elect to graduate from high school in three years by attending all four quarters. One-third of a unit of credit may be earned each quarter. The project's objective is curriculum improvement rather than economy. It is hoped that the arrangement will lead to more flextbility in course sequences and in student program planning and scheduling.

The Delaware State Board of Education has authorized a pilot project to begin in the sumer of 1968. A 212 -day school year is to be divided into four quarters, with students attending three or all four quarters on a rotating basis. If this sumer project and the project tentatively scheduled to begin in September 1968 are successful, the State Board may act to implement the program throughout Delaware in 1969-70. Reasons for the Board action were rising classroom construction costs and growing student population, and the increasing competition for academic prosters.

\section*{Studies}

In 1952, the Fairfield, Connecticut, Citizens School Study Council reported that a needed \(\$ 3,000,000\) building program would cost taxpayers \(\$ 368,750\) a var for interest, anortization, and operation and maintenance of new building . The cost of operating the schools on the rotating four-quarter plan (including air conditioning) was estimated at \(\$ 81,900\) a year, a savings of \(\$ 286,850\) n year during the period the building program costs were being repaid.

Not all studies indicate a saving under the four-quazter plan. In 1957, At lanta concluded that the cost of operating a four-quarter plan would be greater than the cost of building new schools. Although operation costs, fixed charges, and teacher retirement benefits would be less under the four-quarter plan and new plants would not have to be constructed, maintenance and instruction would cost more and afr conditioning would have to be installed. Thus, the Atlanta study found that while operation of the four-quarter plan would cost \(\$ 3,804,000\), the cost of continuing with the traditional school year and constructing required new facilities would total \(\$ 7,617,000\).

Other cost analyses which showed the four-quarter plan to cost more than the traditional plan plus new buildings were: Fulton County, Ceorgia, \(\$ 2,098,800\) against \(\$ 2,772,500\) for the 12 month plan; DeKalb County, Georgia, \(\$ 1,714,000\) agginst \(\$ 2,280,000\) for the 12 -month plan.

Los Angeles conducted an extensive study of the four-quarter plan in 1954. The conclusion was that the all-year schooi was too costly, met with too much public resistance, and created too many administrative problems to make adoption feasible.

The Florida State Department of Education also concluded that the theoretical economies of the rotating four-quarter plan would not obtain and that the plan would create additional problems. The Department estimated an annual state-wide saving of \(\$ 3,882,400\) on depreciation and new buildings to be constructed in the future, but it also anticipated that new expenditures would offset the amount saved.

A 1958 study of the feasibility of adopting the rotating four-quarter plan in Cincinnati also found that economies would not obtain. The study concluded that although the plan would result in savings on capital outlay for buildings, the projected one-third increase in building aceomodetion was hardly obtainable. The plan would generally result in increased maintenance and operation costs, and "a substantial postion, if not all, of the economy attained.o.would result from a reduction in the number of days each pupil attended school." Other problems predicted were fluctuating class sizes, combination classes, difficult pupil transfers, and lower quality of performance in extracurricular activities.

In July 1960, the Citizens' Comnittee of the Sequoia Union High School District, California, reported that costs for operating the four-quarter plan in 1959-60 would total \(\$ 6,006,486\), but for the current plan, \(\$ 4,782,952\); on an ADA basis, \(\$ 549.94\) under a four-quarter plan, and \(\$ 560.52\) under the current plan. The increase under the four-quarter plan included:
1. Administration: \(8 \%\) increase to compensate for additional staff to cover recent vacation allowances.

2a. Salaries of certificated personnel: 33\% increase to allow for additional teaching staff for \(28 \%\) more pupils plus \(5 \%\) allowance for an increased number of teachers required to staff small classes.

2b. Other salaries: \(28 \%\) increase to provide \(28 \%\) more pupils with instructional materials (although the quantity of instructional materials used at any given time may be less, the accelerated rate of replacement will offset any savings).
3. Auxiliary services: \(8 \%\) increase (same as 1 ).
4. 5. Operation and maintenance: \(8 \%\) increase to cover an increase in custodial work, repairs and maintenance, and more overtime and contract work during week ends and holidays.
6. Fixed charges: \(20 \%\) increase (a selected percentage between \(8 \%\) and \(33 \%\) ) to cover increased cost of staff retirement contributions for an increased staff (items \(2 a, 2 b\), and 3) but with recognition that other fixed charges, such as insurance, will not be materially increased.

The same comittee reported that the per-pupil cost for new construction would be \(\$ 80\) under the present plan and \(\$ 63.23\) under the four-quarter plan.

In 1966, the Florida Education Research and Development Council conducted a feasibility study of seven rescheduled school year plans for Polk County, Florida. The Council concluded that the rotating four-quarter plan would result in a 25.21 percent increase in net expenditures.

Some of the advantages and disadvantages of the rotating four-quarter plan may be summarized:

\section*{Advantages}
1. The school plant and other equipment are not idle for onefourth of the year.
2. Fewer school buildings are required, thus efrecting economies in school construction, debt service, and insurance premiums.
3. Theoretically, the same school plant, staffed by the same number of personnel, provides for the education of 25 percent more pupils.
4. It eliminates the need for double sessions in overcrowded school systems.
5. Fewer books, less equipment, and the like are needed at any one time.
6. The pupil's work is evaluated more often.
7. A pupil who has falled may repeat only the quarter failed rather than the entire semester or year.
8. The pupil who has been absent for an extended time may reenroll in the quarter or quarters missed, instead of making up the entire semester or year.
9. Teacher status is raised. Teachers receive more pay if they work all four quarters, and need not seek summer employment outside the school system.
10. More pupils may be able to find vacation employment, because only one-fourth as many youth are seeking jobs at any one time.
11. More pupils may be able to participate in extracurricular activitles.

\section*{Disadvantages}
1. Many studies have shown that the cost of operating a rotating four-quarter school is greater than the cost of constructing and operating a traditional nine- or 10 -month school.
2. Mafntenance of the school plant without disturbing school sessions is difficult because schools are constantly in session. Major cleaning and repair of buildings may have to be done at night, or on week ends, thus requiring overtime pay and adding to costs.
3. Maintenance costs necessarily increase because the plant is in steady use.
4. Accelerated replacement of textbooks and other instructional materials would offset any savings resulting from a decrease in the number in use at any one time.
5. The burden on administration and supervision is greatly increased; additional staff may be needed to handle quarterly enrollments, scheduling, graduation ceremonies, and the like. Extended vacations for such key staff as principals might be difficult to arrange.
6. Before the plan could become self-sustaining, one-fourth of the students would have to attend achool continuously for 18 months.
7. Time is wasted when pupils must adjust to new classmates, schedules, and teachers several times a year.
8. Pupil transfers to and from traditional nine- and 10-month schools in other districts are difficult.
9. Coordinating and planning for extracurricular activities, which are often geared to seasons (e.g., sports, music, drama), are difficult. The quality of performance in extracurricular activities may decrease.
10. Teachers' mental and physical health may not withstand the pressure of year-round employment.
11. Summer study and travel for teachers would be eliminated. (The countering argument is that teachers may be given more sabbatical leaves.)
12. Many parents dislike the thought of children taking vacation during uncomentional seagns of the year. Family vacations may be disrupted.
13. It is thought that winter is no time for a child's vacation. For many pupils, summer camp and other experiences would be eliminated. (The countering arguments are: the child would be able to participate in other seasonal activities, such as winter sports, or, pupil vacation quarters may change from year to year. The latter, however, would require pupils to be in attendance over more than three consecutive quarters.)
14. Most commaities which have operated under the rotating fourquarter plan or have studied its feasibility have concluded that its disadvantages outweigh its advantages. Other systems are looking at modifications of the plan which are more similar to a tradicional nine-month school year, divided into three quarters, pluo voluntary summer fourth quarter.

\section*{EXTENDED TEACHER CONTRACTS}

Some school systems are beginning to offer extended teacher contracts, with commensurate pay. Although not specifically plan for rescheduling the school year, the 11- or 12-month teacher contract is sometimes used in connection with the summer school, as it is in Rochester, Minnesota.

Extended contracts may be offered to all teachers, to a certain number or percentage of teachers, or to all teachers who meet certain requirements, such as a certain number of years of service in the school system. The longer contract may be required of all teachers, but in most instances it is voluntary. These contracts are in contrast to the common practice of employing individual teachers to teach in sumer-school program.

Teacher activities during the sumper monthe vary. For example, teachers in Rochester, Minnesota, eay elect to: (a) teach in sumer school; (b) work in the commanty recreation program; (c) participate in workshofs, curriculum studies, or seminars; (d) work on local studies and research proje. "s; (e) attend summer school; (f) request educational travel; (g) conduct indivijual research projects. Length of service requirements restrict eligibility for sumer school and travel requests.

Among those sthool systems known to offer extended teacher contracts are Glencoe, Illinois; Lakewood, Ohio; Milwakie, Oregon; Stevenson, Washington; Forest Hills, Michigan; and Oil City, Pennsylvania.

\section*{EXPLANATORY NOTE}

The following explanation is intended to supplement the brief statement of limitation on p. 15 of the report on the extended school year which is attached.

The Statistica Report of the San Diego Unified School District, 1968-69, p. 15, list's che total current expense of education as \(\$ 102,024,770\). The cost of the \(\mathrm{K}-\mathrm{i} 2\) program for \(1968-69\) listed in this report is \(\$ 69,706,867\).

The difference in cost is due to limitations agreed upon by the committee. The limitations were to include only those cost factors (and income factors) which fluctuate because of changes in. student attendance patterns or in the amount of education provided.

Accordingly, the costs which appear in the report are:
1. The direct cost of the instructional program.
2. The cost of utilities, operations, and maintenance of the school plants.
3. The cost of salaries of personnel from the Student Services Division and the Curriculum Services Division who provide direct, on-site services to schools.

Costs which do not appear in the report are:
1. The cost of district administration.
2. The cost of health services (other than nurses' salaries).
3. The cost of transportation.
4. The cost of fixed charges (retirement, insurance, etc.)
5. District prorate costs.

The report in this form and with its planned limitations enabled the Board of Education to gain an appreciation of the financial implications of the extended school year.```

