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ABSTRACT

The purpose of a comprehensive study of the design of the school calendar in Virginia was to identify the quality and quantity of allocated time and the amount of time spent and needed for student learning as factors determining the impact of instructional time on educational quality. Synthesizing available research and new surveys and interviews, the study evaluated the effects of instructional time on learning; options for increasing instructional time and public reactions to them; current Virginian, national, and international calendar practices; Virginia's summer remedial programs; and current time-management strategies. Apart from programs for students at risk, research does not demonstrate a long-term, causal relationship between allocated time and educational quality. In only a few instances have Virginian schools received the public support required to significantly lengthen the school year or day. Attempts to lengthen the school day may increase fatigue and inhibit extracurricular activities. Data from year-round schools offering optional summer quarters do not indicate superior student performance. Virginia should ensure educational quality through: (1) careful curricular design and optimization of teacher-to-student ratios; (2) continued funding for summer-school programs for students at risk; (3) staff development and training; and (4) consideration of additional research findings. Six appendices provide the text of the legislation authorizing this study; charts showing instructional time in Virginia school divisions and across the nation; year-round school calendar plans; methodology of the school division's survey with questionnaire; and methodology of a poll of Virginia residents on the study questions. (Contains 110 references.) (TEJ)

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December 1992

Instructional Time and Student Learning: A Study of the School Calendar and Instructional Time

Virginia Department of Education

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A Study of the School Calendar

and Instructional Time

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EXECUTIVE SUMMARY

In a Fall 1990 address, the Secretary of Education noted that one of the major responsibilities Virginia's public schools have is to prepare students for competition in the rapidly expanding international marketplace. One notable difference between the operation of American schools and those in foreign nations is the design of the academic calendar. In comparison with many foreign students, American students attend school fewer hours per day and fewer days per year. At the Secretary's request, the Board of Education directed a team from the Department of Education to undertake a comprehensive study of the school calendar and the effect of instructional time on learning.

The primary goal of this study is to examine the relationship between instructional time and student learning. The study identifies four factors related to productive student learning time: time allocated for instruction, quality of the instructional time, amount of time students engage in learning and time students need for learning. With a goal of maximizing productive learning time, the study assesses a variety of options associated with instructional time: extended school year, extended school day, year-round schooling, summer school and better management of allocated time.

The study has the following major objectives that identify the relationship between instructional time and student learning; identify options for increasing instructional time; analyze current school calendar practice in Virginia, in the United States and in foreign countries; analyze summer remedial reading programs in Virginia public schools; analyze public opinion regarding alterations to the school calendar; and identify methods commonly used for management of allocated time.

Methods employed in the study include synthesis of available research on the relationship between instructional time and student learning; survey of current school calendar and scheduling practices in Virginia; survey to ascertain local opinion regarding changes to school calendar; structured interviews with administrators from selected Virginia school divisions regarding summer reading programs; survey of Virginia public opinion regarding the length of the school year and school day; review of international school calendars and educational structures; and review of the Code of Virginia and Board of Education regulations related to instructional time.

Research supports the importance of allocated time for learning; however, research does not identify the optimum time allocations for productive student learning. Studies addressing the impact of increases in allocated instructional time lack the scientific rigor necessary to draw causal relationships about the cumulative, long-term effects. The most persuasive research

demonstrates the benefits of increased time for students at risk. These students are most likely to show real learning gains with increases in allocated time.

The report shows that the length of Virginia's school year is less than in many foreign countries. However, comparison of student achievement on the basis of the length of the school year fails to account for international variances in the population educated and the nature and quality of instructional practice. The length of Virginia's school year (180 days) is consistent with the rest of the country. The community's attitude toward the length of the school year is critical. Many school divisions report that the community does not support increasing the number of days of instruction. School divisions that have successfully increased the length of the school year have done so with extensive community support. Public opinion in Virginia does not currently support extending the length of the school year. However, extended year for special education programs must be made available, where appropriate, for eligible students.

The length of Virginia's school day is also consistent with the rest of the United States. Although most Virginia school divisions exceed the mandated five and one-half hours of instruction per day for grades one through 12, few exceed the mandate by more than 30 minutes. Most Virginia school divisions exceed the mandated three hours per day of instruction for Kindergarten. Increasing the length of the school day may adversely affect student effort, due to learning fatigue, and may impact on participation in extra-curricular and work activities. Like the school year, the length of the school day is a community issue. School divisions that have successfully increased the length of the school day have done so with community support. Virginia public opinion does not currently support extending the length of the school day.

Year-round schooling, as a method for altering the school calendar, is used most frequently when school divisions are experiencing population growth and lack adequate school facilities. Most school divisions, in Virginia and throughout the nation, discontinue year-round schooling once problems associated with population growth are alleviated. Few school divisions offering year-round schools provide an increase in the length of the school year; rather a voluntary fourth quarter of instruction is offered. Evaluation of student achievement in year-round schools finds students generally do no better or worse in schools with alternative calendar arrangements.

Summer school provides an opportunity for additional instructional time. The majority of Virginia school divisions utilize summer school programs for remediation, acceleration and promotion. Enrollment remains voluntary. Many divisions offer reading improvement programs at no cost as an incentive for

enrollment. However, extended year programs must be made available, where appropriate, for special education students. Virginia summer school reading programs frequently provide the opportunity for teachers and students to experience alternative instructional techniques. State funding for remedial summer programs is essential to ensure the availability of these programs.

Virginia establishes a framework for instructional time through its compulsory school attendance requirements. Virginia's requirements exceed those of most states, mandating attendance for students aged five through 18, while exempting five-year old students from school attendance, with parental consent. Attendance policies also impact available instructional time. These policies are the prerogative of local school divisions in Virginia, with no consistent attendance policy in use statewide.

Educators and non-educators alike agree that management of allocated time is of the utmost importance in assuring productive learning. School administrative and instructional practices influence the use of scheduled time for student instruction. Practices that foster student effort and match student learning needs with the instructional task enhance productive learning for students. State standards for public schools emphasize the value of productive student learning as standards call for the conduct of teaching and learning in a positive atmosphere.

Schools in the United States and Virginia reflect the social, economic and cultural values of the community. School divisions that have successfully altered the school calendar gathered widespread community support before implementing changes. Absent without such local support, any initiative to increase the school year or day or alter the calendar, as in year-round schooling, generally fails.

As educators consider the need for increases in instructional time they must evaluate the purpose for such an increase. If inadequate time for instruction is the source of deficits in student learning, then increases in time may result in enhanced learning. However, if other factors are the cause of student achievement problems, providing additional time will not prove effective. If curricular expectations are such that students will require more instruction than allowed with the current school calendar, education officials should pursue increases in allocated time. It is vital that the instructional practice and scheduling reflect the learning needs of students and the goals of public education.

Chapter I

INTRODUCTION

Overview and Origin of Study

Concern about America's competitive edge in the international community focuses attention on the quality of education that is available to the nation's students compared with educational programs provided for students in foreign countries. Time spent in school is one issue surfacing as a point of disparity in these comparisons. Reports indicate that American students spend less time in school than many of our international counterparts. This fact, many say, is responsible for the lower achievement of American students in international comparisons. In addition to the question of achievement, the explosion of knowledge and the increasing number of mandates addressing information to be taught in public schools suggest to many that there is inadequate time to teach the knowledge and skills American students must acquire. In response, a variety of commission and education reform reports call for a substantial increase in the amount of time American students spend in school. Increasing the time American students spend in school is clearly a part of the national education reform agenda.

While not the only option for increasing instructional time, the longer school year is the option currently receiving considerable attention. The typical school year in the United States is 180 days, in contrast with European and Far Eastern countries where students frequently attend school for over 200 days. Despite considerable political attention, there have been only minimal changes in the U.S. school calendar in recent years. There are many explanations for the reluctance by states to significantly increase the number of instructional days. Many educators believe that the quality of education provided during the existing school year should be the center of reform, rather than the length of time students are in school. Education research suggests that for most students, modifications in curriculum and instructional techniques, as well as reductions in class size, will have a greater impact on educational achievement than an increase in allocated time.

Possible obstacles to modifying the length of the school year are significant. One barrier is the financial costs associated with increasing time in school. A 1984 study by the Education Commission of the States estimated that extending the school day to eight hours or increasing the school year by 20 days, would cost the U.S. in excess of $20 billion annually. As a result, studies question the cost effectiveness of increasing instructional time compared with other methods of modifying instruction.

Tradition and public opinion also constitute a barrier to increasing the length of the school year. Gallup/Phi Delta Kappa polls over the past 40 years indicate public opposition to extending the school year. Public opinion shows a gradual shift of this opposition, but the American public continues to value a lengthy summer vacation.

In a March 1991 address to the Board of Education, Secretary of Education James W. Dyke, Jr. commented that one of the major responsibilities of Virginia's public schools is the preparation of students for competition in a rapidly expanding international marketplace. He specifically cited the length of the school calendar as a notable difference between the operation of American schools and schools in foreign nations. Secretary Dyke pointed out that, in comparison with foreign students, American students attend school fewer hours per day and fewer days per year. At the Secretary's request, the Board of Education directed the Department of Education to undertake a comprehensive study of the school calendar and specifically, the effect of instructional time on student learning.

Concurrently, the 1991 session of the General Assembly called for an examination of compulsory summer reading programs. House Joint Resolution 423 requested the Board of Education to examine the feasibility of requiring local school divisions to provide compulsory summer reading programs for students in grades one through three who score in the bottom quartile on standardized tests. Because of the relationship to instructional time and the definition of the school calendar, this request for review of summer school programs was incorporated into this study of the school calendar.

Evolution of the Current School Calendar

The structure of the American school calendar reflects the values and interests of society. Schools in the nineteenth century reflected the economic needs of the citizenry. During those years, 85 percent of the population was involved in the agricultural industry and schools were open for three to six months per year in rural areas. In contrast, city schools were open for eleven to twelve months per year, although attendance was voluntary and few students attended school for the entire year. By the turn of the century, the length of the calendar for rural schools had increased to 140 days per year, and city schools had decreased their calendars to 195 days per year. Lengthy school vacations were scheduled during the summer in response to the country's agricultural needs.

The first national use of a summer education program was reported in 1904. Many summer school programs were originally designed as acceleration programs to shorten the total number of years a student attended school. Summer school programs were

also offered to remediate academic deficits, enrich students and provide recreation.

The passage of the national Elementary and Secondary Education Act in 1965 expanded summer school programs for compulsory education purposes. The impetus for this legislation was the view that summer school served as a major vehicle for eradicating the effects of poverty and related social ills.

At the time of the second World War, school calendars for the nation ranged from 170 to 180 days. The population explosion of the 1960s generated interest in year-round schools, as many localities were confronted with increasing student enrollment and a shortage of school facilities. Many school divisions began to implement programs to utilize the school buildings throughout the year. The school calendar was altered, maintaining the 170 to 180 days of instruction, interspersing the traditional summer vacation period throughout the calendar year. Education was provided twelve months of the year, although students continued to receive the conventional nine months of instruction.

The education reform movement of the 1980s stimulated recent national interest in increasing the length of the school year. Although a number of states have increased the length of their calendar year to 180 days, only Ohio mandates more than 180 days.

Whereas, the current school calendar reflects the historical importance of agriculture in our society, it also reflects America's tradition of a long summer vacation. Given the importance of the summer vacation for travel, it is not surprising to observe the travel and tourism industry's increasing influence over the school calendar. Virginia, like other states, has experienced this influence in the establishment of school calendar parameters. The 1986 General Assembly adopted legislation delaying the opening of the school year until after Labor Day, responding to pressure from this important economic interest group.

In summary, the common reference to the present school calendar as a relic of the agricultural era is technically correct. However, this argument fails to recognize that schools continue to serve the needs of their patrons. It is anticipated that community needs will continue to have a significant influence on the setting of the school calendar.

Education Reform Initiatives

The issues related to instructional time and the school calendar were raised as early as 1961 in Virginia, when the Commission on Public Education (the "Spong Commission") completed its report to the Governor and the General Assembly of Virginia, entitled **Virginia Schools in the Space Age - A Continued**

Evaluation of the Curriculum, Teacher Training, and Related Matters. The Commission members anticipated the issues educators would address over the next three decades in their focus on the explosion of knowledge and their interest in increasing the length of the school year.

- "The explosion of knowledge in a competitive age has provoked searching examinations of the adequacy of the present school day, school week and school year."
- "There is general agreement in this country that there is too little time to teach what is necessary. There is no agreement as to what to do to correct this situation."
- "We do believe that the present school year can be lengthened to advantage by as many as ten days, and therefore recommend that the school year be lengthened from 180 to 190 days."

Spong Commission, 1961

The National Commission on Excellence in Education, in its 1983 report, addressed both the amount of instructional time available for student learning and the management of allocated time. This Commission recommended both longer school days and years, particularly to meet special needs.

- "School districts and State legislatures should strongly consider seven-hour school days, as well as 200- to a 220-day school year."
- "The time available for learning should be expanded through better classroom management and organization of the school day."
- "If necessary, additional time should be found to meet the special needs of slow learners, the gifted and others who need more instructional diversity than can be accommodated during a conventional school day or school year."

National Commission on Excellence in Education, 1983

The issue of the length of the school year has the attention of the U.S. Congress and the Bush administration. In July 1991, the United States Congress passed legislation establishing the National Commission on Time and Learning (originally titled the National Commission on a Longer School Year). This Commission is charged with studying and making recommendations regarding the advisability of lengthening the school year. The study will include an analysis of the length of the school day and year in the United States and other countries, recommendations for the appropriate length of the school day and school year, and identification of impact on teacher salaries. The Commission's goal is to develop a model for adopting a longer academic day and year by the end of the decade. The model will include suggested changes in the current law, an analysis of the costs, and a technical assistance plan to help states and municipalities implement the Commission's recommendations.

The multitude of studies, commissions and commentaries addressing the achievement levels of American students and the international comparisons, result in the identification of possible options for increasing instructional time through:

- lengthening the school day;
- lengthening the school year;
- increasing the amount of assigned homework;
- increasing the time allotted to certain subjects;
- establishing attendance policies; and,
- increasing graduation requirements.

These initiatives have been implemented in varying degrees throughout the United States. Over the past decade, the Commonwealth increased graduation requirements and studied the seven-period day. Independently, many local school divisions across the state have gone beyond the mandated five and one-half hour school day at both the elementary and secondary levels. In addition, homework assignments have increased and additional time has been allocated for certain subjects in some divisions. However, a statewide policy to adopt any of these options for all of Virginia's divisions has not been established.

Purpose and Scope

The purpose of this study is to examine the relationship between instructional time and student learning. Factors related to productive learning time are identified: allocated time, quality of instructional time, engaged time and needed time. With the goal of maximizing productive learning time, the

study assesses a variety of options associated with instructional time: extended school year, extended school day, year-round schools, summer school, and better management of allocated time. In order to analyze the impact of these options on student learning, the study has the following major objectives:

- identify the relationship between instructional time and student learning;
- identify a variety of options for increasing instructional time;
- review the current practice related to the school calendar in Virginia and in the nation;
- review summer remedial reading programs in Virginia public schools;
- ascertain public opinion regarding alterations to the school calendar; and,
- identify the methods commonly used for management of allocated time.

The study assesses the effect of alterations to the school calendar on student learning. Issues related to the use of school facilities to accommodate student population growth or in response to the social needs of the community are reviewed, but are not analyzed, as these modifications are not implemented for the primary purpose of improving student learning. The study did not attempt to assess the time needed to accomplish a given curriculum. At present, the Department of Education is developing a Common Core of Learning for all students. The issue of time required to accomplish mastery of a curriculum in response to this common core will need to be addressed in the future.

Methodology

The study team is comprised of staff from the Department of Education, a local school division administrator and a Governor's Fellow. The team received assistance from the Southern Regional Education Board and the Education Commission of the States.

Methods employed in conducting the study include:

- synthesis of available research on the relationship between instructional time and student learning;
- survey of current school calendar and instructional scheduling in Virginia school divisions;

- survey of local school divisions to ascertain local opinion (school boards, central office administrators, teachers and parents) regarding changes to instructional time in Virginia school divisions;

- interviews with staff from selected school divisions in Virginia and across the nation where school calendars have been altered;

- structured interviews with staff from selected Virginia school divisions offering summer remedial reading programs;

- review of general public opinion in the United States regarding attitudes toward a longer school year and longer school day as reported in the 1991 Gallup/Phi Delta Kappa national education poll;

- survey of general public opinion in Virginia regarding the length of the school year and the school day via the Commonwealth Poll, conducted by Virginia Commonwealth University's Survey Research Laboratory;

- review of international school calendars and educational structures;

- review of the Code of Virginia and Board of Education Regulations related to instructional time;

- review of information regarding student achievement from the Department of Education's Outcome Accountability Project;

- survey of Virginia education interest groups; and,

- analysis of calendar data from local school divisions on file with the Department of Education.

Overview of this Report

This report is organized into eight chapters. Chapter II examines the relationship between student learning and instructional time. Chapters III through VII address the options available for altering instructional time: extended school year, extended school day, year-round schools, summer school, and management of instructional time. The final chapter presents the study conclusions. Appendices provide additional information.

Chapter II

STUDENT LEARNING AND INSTRUCTIONAL TIME

Overview

This chapter examines learning theory and research on student learning and instructional time. Consistently, theory and research show that the concept of time, as it relates to learning, is complex and does not reflect a simple linear relationship. A theoretical model describing the complexity of the time and learning relationship is proposed.

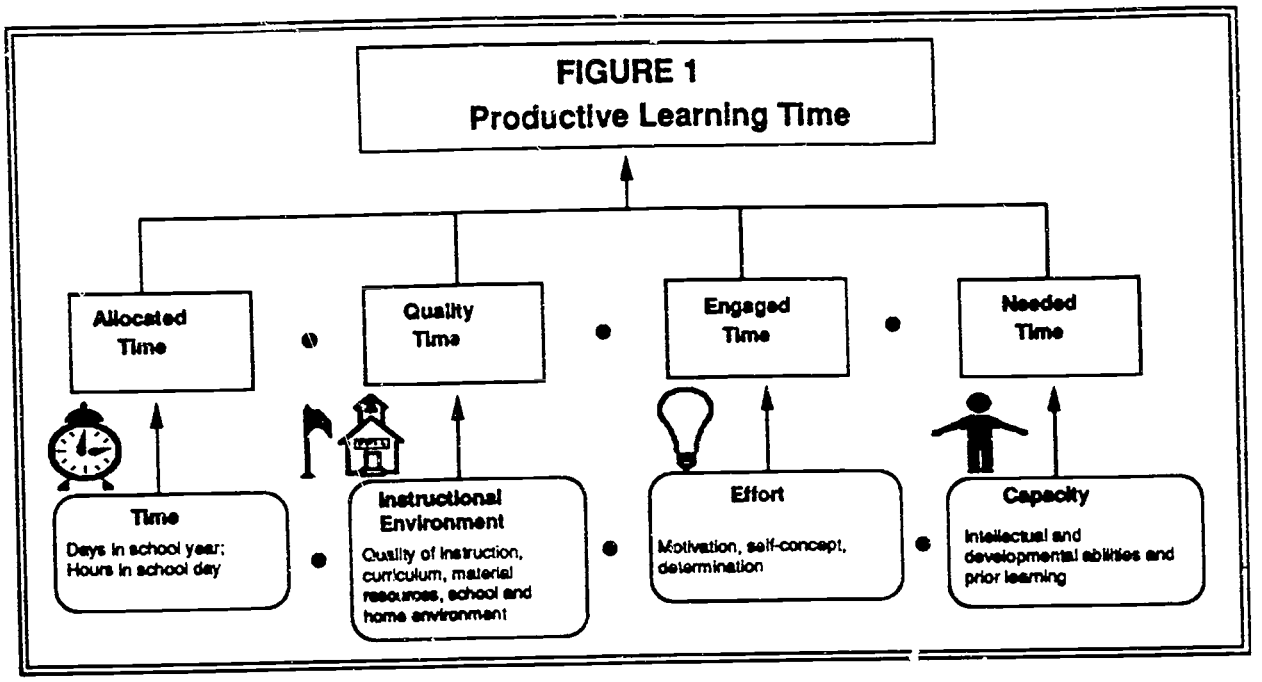
Model for Understanding the Relationship Between Time and Student Learning

Educational theorists (Carroll, 1963; Levin, 1984; Walberg, 1988) identify multiple factors that interact to affect productive student learning. These include:

- quality of the environment, both at home and school, in which instruction takes place;
- student self-concept, effort or motivation and willingness to engage in learning;
- student aptitude, prior learning, intellectual development, and chronological development; as well as,
- actual amount of time allocated for instruction in the school day and in the school year.

The combination of these factors determines the actual learning that occurs (Figure 1).

Student learning, the goal of education, occurs during productive learning time. Maximizing all components of the learning equation increases productive learning time. The interrelationship of these factors must be considered in decisions concerning the time allocated for instruction.



Research on Time and Student Learning

Researchers investigating the effect of time on learning measure three distinct aspects in relation to student learning. The first and easiest to measure is **allocated time**, the number of days and hours scheduled for instruction. Students engage in learning, or exhibit on-task behaviors, for only a portion of this allocated time. This second aspect is referred to as **engaged time**. Engaged time is usually measured through direct observation of students and their responses to classroom instruction. The third aspect of time is **productive learning time**, or academic learning time. This is the portion of engaged time that results in increased student learning. Measures of productive learning time compare the student's mastery of academic skill with the time needed for mastery. The instructional environment or the quality of time for each student is critical for maximizing learning time. Effective management of allocated time at the division, school and classroom level underlies the quality of time devoted to instruction.

The following discussion presents the research regarding these important concepts.

Allocated Time: Allocated time sets the stage for learning to occur. Levin (1984) reports that total instructional time in a given subject area positively correlates to student achievement. Quantity of time is critical to student learning. The best quality instruction can be thwarted by insufficient allocated time.

Educators attempt to effect an increase in allocated time by increasing the length of the school year or day, modifying the school calendar and assigning students homework. However, research on the effect of a simple increase in allocated time alone on student achievement is inconclusive (Figure 2). In addition, controlled studies of increasing the length of the school year and measuring the effects of this change are not found in the available research. Furthermore, school divisions that have increased the length of the school year or school day by small increments have not systematically documented cumulative effects on achievement over time.

Additional allocated time appears to offer advantages for students who are at risk for educational failure. Studies comparing the effects of full day versus half day kindergarten programs document the most impressive in student learning gains attributed to an increase in allocated time. In a thorough review of the literature, Karweit (1988) found that significantly increasing the amount of time allocated to certain preprimary programs results increased achievement, particularly for students at risk. This effect is noted in research addressing students from low socio-economic-status (SES) homes, students classified as limited English proficient, and students with academic or cognitive disabilities. Although most studies report only short-term learning gains, consistently **students at risk** appear to benefit from increasing time allocated for instruction.

A positive relationship between an increase in the length of the school day and student achievement has also been noted for students in upper grades considered to be at-risk. In contrast, students from high or middle SES homes did not demonstrate a significant relationship between an increase in allocated time and increased achievement.

Many school systems offer summer programs for students, thus increasing the time available for instruction per year. However, there is scant information describing the affects of summer programs on student learning. Researchers differ in their opinions of the benefit of summer programs on student achievement. Some researchers report that students who are at risk or have disabilities benefit from summer programs, although supporting data are minimal. Others contend that summer programs do little to benefit any students.

Student absenteeism reduces the amount of allocated instructional time. Students who are frequently absent often encounter academic and social difficulties in school. Students with higher rates of absenteeism are more likely to receive poor grades in school and to drop out. Increasing the number of days in a school year alone may not make up the time lost to absenteeism. Karweit (1985) proposes that an increase in the number of days allocated to a school year may actually increase

absenteeism. This assumption, however, has neither been substantiated nor negated by research. It is not clear whether reduced allocated time or student skills and motivation have greater influence on student underachievement. Undoubtedly, these factors interact, promoting a cycle of failure.

Increasing the length of the school day carries a risk of learning fatigue. Psychological research suggests that "learning fatigue" or saturation occurs, particularly when the learner is not given enough opportunities for breaks in direct instruction, when the instruction is not varied or incompatible with the student's learning style. Walberg (1988) suggests a point of diminishing return, when increases in instructional time will not produce increased learning.

Extended school vacations during the summer months lead to some degree of regression in student achievement for all students. Recoupment generally takes four to six weeks, and the beginning of the school year often is given to the review of previously learned material. Teachers often report that it takes at least one grading period (four to six weeks) for some students to attain levels of achievement comparable to those levels at school exit in June. This is specifically noted for students who are unable to participate in any school, community or family enrichment activities during the summer.

Although regression in student learning during school breaks is accepted, studies of memory and learning theory suggest that this regression represents a lack of opportunity for practice, rather than forgetting. Studies in psychology report that most forgetting occurs immediately after learning (within one hour to one day). Students do not lose competencies mastered and maintained with breaks in instruction. However, relearning is helped by increased opportunities for practice (Russell, 1978). Thus, summer programs that allow students to maintain learned information through additional practice may reduce the time required for review or relearning.

Proponents of year-round schooling argue that this method of organizing the calendar reduces regression through elimination of the extended summer vacation. This claim has not been substantiated by evaluation studies. In fact, studies suggest that systems that alter the school calendar find students generally do no better or worse than students from systems with traditional calendar arrangements.

Allocated time is critical to student learning. It is, however, but one factor. Current research does not provide documented evidence that extending the school year or school day in isolation will result in significantly increased student learning. It is not likely that the goal of significant improvement in student learning will be achieved by increasing

allocated time alone unless this increase is also accompanied by instructionally effective and appropriate curriculum.

Engaged Time: Learning can take place when students are attentive and on-task, engaged and putting forth appropriate effort. Motivation and self-concept affect student effort. Research suggests that students are on-task only 50 to 75 percent of the time allocated to instruction. Individual students vary in their on-task behavior, sometimes by a ratio of three to one (Karweit, 1988). Potential factors affecting a student's willingness and ability to engage in learning include motivation, self-concept, peer group pressure achievement level, learning style, instructional needs, developmental level, quality of instruction, physical condition, and class size. Levin (1984) asserts that policy makers often overlook the role of the student as a central decision maker in using personal energy or time for the purpose of learning.

Further, student involvement in non-school learning activities and parental involvement in the student's out-of-school learning activities may enhance engaged time. The amount of engaged time outside of school hours is cited as one reason for the varying responses of different populations of students to alterations in allocated time. Increasing the time students engage in learning leads to increased student achievement. It will be necessary to consider these factors in any plan to increase student engagement in learning.

Productive Learning Time: Productive learning time is that portion of engaged time when the individual student learning rate is highest and most efficient. Productive learning time results when each of the following is in place:

- Student is on-task and engaged in learning;
- Student is experiencing a high degree of success in the learning activity;
- Time needed to master the learning objective for the individual student matches the time allocated for that purpose; and,
- Quality and method of instruction is appropriate to the individual student.

Much of the knowledge regarding productive learning comes from the California Beginning Teacher Evaluation Study (BTES) completed by Fisher and colleagues in 1980. The research findings include:

- The amount of time allocated to instruction in a particular content area positively correlates with student learning in that content area;

- Student engagement in the task positively correlates with learning;
- The degree of high success in the activity positively correlates with learning and the degree of low success negatively correlates with learning; and,
- Students experiencing success and thus increases in academic or productive learning time demonstrate positive attitudes towards school.

This study also documents the positive relationship of teacher behavior on student learning and the increases in productive learning time. Findings include:

- Teacher accuracy in diagnosing student skill levels correlates with increases in productive learning time;
- Teacher selection of appropriate learning tasks impacts student achievement and increases productive learning time; and,
- An increase in the amount of interaction between teacher and student leads to increased productive learning time.

Needed Time: Student ability, experience, aptitude and developmental level determine the amount of time needed for an individual student to master a learning objective. The complexity of the learning task also influences the amount of time needed. Too much allocated time leads to boredom and decreased effort, and too little allocated time leads to frustration and decreased effort. Awareness and assessment of individual student factors that affect needed time is critical to good instruction. Complicating instructional planning, however, is the fact that there is a high degree of variation among individual students in the time needed to master a particular learning task. Karweit (1988) asserts that this can vary by a ratio of as much as seven to one. As a result, Karweit (1988) believes the research conducted on time and achievement is limited by the failure of researchers to consider the effect of time needed for a learning task or for learners.

The amount of time an individual student needs to master a learning objective is not usually amenable to change by educators. However, failure to consider the student's needs for allocated time and use of this time can negate the benefits of otherwise appropriate educational objectives.

Quality of Time: The quality of the instructional environment directly relates to student learning. Quality of time refers to the organizational and instructional practices and the resources of the physical environment within the school

setting. This also includes the management of allocated time. These factors can maximize or minimize the effective use of the allocated time for instruction.

Local schools establish schedules that allocate instructional time based on state and local mandates. Individual classroom teachers adopt classroom management practices that impact the use of allocated time. Up to 50 percent of the time allocated for instruction is lost in classrooms. This loss can be caused by interruptions, transitions between subjects, procedures, student waiting between tasks, and classroom management. In addition, physical discomfort, lack of available materials, and distractions decrease the effectiveness of instruction and use of allocated time.

Although education reformers and researchers may disagree on the value of increasing allocated time, they do agree that increasing the effective use of allocated time is an essential first step to education reform. Specific instructional practices are appropriate to precede or accompany changes in allocation of time; schools should:

- Provide a curriculum that is challenging and integrated and considers student instructional needs;
- Provide an instructional setting with a low teacher to student ratio, particularly for students who are low achievers;
- Use methods and approaches that provide an opportunity for teacher and student interaction;
- Provide appropriate corrective feedback to the student;
- Assess individual student progress and inform the student of that progress;
- Set clear learning objectives and provide instruction to accomplish those objectives; and
- Organize and manage the school and classroom in ways that encourage student commitment, enable student accomplishment, and provide a safe emotional and physical environment.

Research Limitations: Reviews of the research on time and learning have been conducted by numerous authors as summarized in Figure 2. These authors consistently report that the research on time and learning lacks empirical rigor. Studies that solely measure allocated time describe inconsistent findings. Many researchers express, with surprise, a less than anticipated correlation between time and achievement. Research on increasing the length of the school year, either by adding days or by

including an instructional summer program, is minimal and inconclusive. Most studies have been short term with limited research designs. Longitudinal data demonstrating positive long term cumulative and lasting effects of a lengthened school year or school day have not been reported. The effects of summer school on achievement are not well documented and, again, potentially positive benefits may be masked by mitigating factors. Likewise, little research exists to systematically investigate the optimum length of the school day or length of instructional periods for certain subjects. Research on full day versus half day kindergarten does support, at least short-term, positive effects on achievement, particularly for students who are educationally at risk.

Summary

Allocated time is an essential ingredient to learning and achievement. Yet, time allocation alone does not guarantee achievement. Current research does not define an optimum model for the length and format of the school calendar. Research does demonstrate the efficacy of maximizing productive learning time and the importance of matching the time provided with individual student's need for instructional time. Research also shows there must be sufficient time given to master competencies required in prescribed curricula. As expectations increase, more time may be necessary, particularly for some students. Though research of allocated time and student learning is limited and lacking in rigor, there exists a common theme that children who are "at-risk" benefit more than children who are "advantaged" from extending the time available for instruction, regardless of the method used.

Researchers and policy makers remain cautious and express disparate opinions about the efficacy of increasing the amount of allocated time as a primary alternative for improving academic achievement. Michael Barrett (1990) argues that focusing only on the use of allocated time may block consideration of an effective increase of allocated time. The contrasting argument is articulated by the National Education Association in its 1987 policy statement that "extensions of the school day or year should be considered only on a school-by-school basis where the staff of an individual school, after a process of collaborative research and decision making, makes a reasonable case that a given extension of the school day/year is the best way of producing a specific increase in achievement."

The absence of such data does not necessarily negate conventional wisdom that suggests more time in school should lead to increased achievement. The data do demonstrate that instructional practices and curriculum selection heavily influence productive learning time.

FIGURE 2
OVERVIEW OF RESEARCH ON ALLOCATED TIME AND STUDENT LEARNING

FOCUS OF ARTICLE	SUMMARY OF RESEARCH	AUTHOR(S)	DATE
Research study comparing half day and full day kindergarten for at-risk student	Students receiving full day programs had significantly higher reading scores at the end of first grade.	Harrison-McEachern	1989
Review of research on learning time in preprimary programs	Concluded that lengthening the kindergarten day may be an effective strategy for at-risk students. Recommended additional research.	Karweit	1988
Review of research on the relationship of increased instructional time to student achievement	Reported no controlled studies on increasing length of school year. Extended year may have a small, but positive effect on student learning outcomes. Reported finding no studies on the direct effect of extending the school day. Concluded relationship between time and achievement not strong.	Hossler, Stage, & Gallagher	1988
Research study comparing half day and full day kindergarten for at-risk students	Students receiving full day programs showed short-term gains in cognitive and physical maturity.	Jones, Pullock, & Marockie	1988
Review of literature on summer programs	Concluded significant educational benefits from summer school are not evident in the literature.	Ascher	1988
Review of research on time and learning	Describes nine educational productivity factors	Walberg	1988
Review of literature on time on task	Concluded that adding additional time should not be a blanket policy; time allocated should equal time needed. Cited studies that demonstrated increase in allocated time was not the most effective technique to increase student learning.	National Education Association	1987
Research study investigating correlation between length of school level performance in academics	Positive relationship found between length of school day and total school achievement scores; most significant relationship found for "at-risk" students.	Wheeler	1987

FOCUS OF ARTICLE	SUMMARY OF RESEARCH	AUTHOR(S)	DATE
Research study of summer learning regression and recoupment for students with disabilities	Regression and recoupment for most students with disabilities comparable to that of general population. Summer special education programs may mitigate regress for some students with severe disabilities.	Tiller, Cox, & Stayrook	1986
Ex post facto analysis of achievement test scores of students from two school systems following extended absences (20 days) due to inclement weather	Comparison of 7 years of standardized test scores found no uniform trends from year to year within grade levels or within groups and no drop in test scores during the year shortened by inclement weather.	Pittman, Cox, & Burchfiel	1986
Analysis of research on time and achievement	Concluded that the correlation between time and achievement slighter than expected; costs of extending school time are disproportionate to resulting instructional gains.	Ellis	1984
Review of research on time-on-task and length of school day	Concluded that increasing time in school alone will not automatically increase student achievement or raise standardized test scores; time not the only variable related to student achievement.	Quartola	1984
Analysis of research on time and achievement	Concluded increase of allocated time alone is not cost effective; no good evidence existed to demonstrate that adding days to the school year would improve student performance.	Levin	1984
Review of research on time and achievement	Concluded that time is a major determining variable influencing student achievement; quality of instruction alone can not override insufficient quantity of instruction.	Reith	1983
Review of research on time and student achievement	Reported research revealed inconsistent findings. Concluded that time is a variable in learning, but that an increase in time does not lead to a substantial increase in learning.	Karweit	1983
Study investigating relationship between lowered class size and student attention	An increase in student attention found with reduction in class size by one-third; students received more teacher contact and spent less time waiting.	Cahen, Filbey, McCutheon & Kyle	1983

FOCUS OF ARTICLE	SUMMARY OF RESEARCH	AUTHOR(S)	DATE
Review of a study of an extended day program for homework support for underachieving students	Reported achievement gains, teacher satisfaction with assignments, reduced absenteeism, and an increase in participation in extracurricular activities.	Gilbert & Price	1981
Purpose: Beginning Teacher Evaluation Study - Identify teaching activities and classroom conditions that foster student learning in elementary schools	Developed measure of academic learning time and a model that academic learning time leads to achievement gain.	Fisher, et. al.	1980
Report of research on learning, retention, and regression	Reported that children from disadvantaged and migrant homes demonstrated greater learning regression during non-schooling times than non-disadvantaged peers. Concluded that advantaged children continue to learn based on experiences even when out of school.	Division of Research, State University of New York	1978

Source: DOE analysis of research.

Chapter III

EXTENDED SCHOOL YEAR

Overview

Many national policy makers and education reformers believe that extending the school year is one important strategy for enhancing America's international competitiveness and teaching students the necessary knowledge and skills. Their assumption is that more time for instruction will result in more learning.

Although increasing the number of days that American students spend in school as a means to improve student achievement has been in the forefront of education reform recommendations for decades, state and local education agencies have not moved to extend the school year beyond that dictated by tradition. A small, but positive short-term effect on student learning is noted for students at risk when an increase in allocated time is provided. Federal regulations guarantee consideration of extended school year services for all students eligible for special education, although this policy is dictated more by litigation than research.

This chapter presents international, national and Virginia practices in the scheduling the number of instructional days in the school year. A discussion of international comparisons and the impact of the community opinion on changes in the length of the school year are also included.

Educational Practice

International

The length of the school year varies considerably in the international community, ranging from 160 to 243 days (Figure 3). In general, most countries require an additional ten to twenty days of instruction beyond the typical 180 days required in the United States. Only Belgium has a shorter school year than the United States. The length of the school year in Asian countries is notably longer than that in the United States, with South Korea and Japan reporting 220 and 240 days respectively.

However, the common practice of comparing education programs solely on the basis of the number of total days of school may be misleading, as countries differ in the nature of the days counted. For example, in Japan, as many as 30 days are designated for field trips, sporting events, cultural festivals and graduation activities. The Japanese system also utilizes half day instruction on Saturdays. Thus, the number of academic instructional days for Japanese students in actuality is the equivalent of 195 days of full time instruction.

FIGURE 3
INTERNATIONAL COMPARISONS:
AVERAGE LENGTH OF SCHOOL YEAR

Country	Number of Days
Belgium	160 (or 175)
Canada, British Columbia	195
Canada, Ontario	186
Finland	190
France	185 (or 190)
Germany, West	210
Ireland	184
Italy	200 - 209
Japan	240
Netherlands	200
New Zealand	190
Scotland	200
South Korea	220
Sweden	180
United Kingdom	190
United States	180

Source: DOE analysis of literature on international education.

Reliance on the days of instruction for international comparisons of education ignores the fact that the educational systems in these countries are vastly different from those in the United States. The governance structures, funding mechanisms, range and types of students, educators, and educational programs vary considerably. Many foreign countries, such as Germany and Japan, rebuilt their education systems after World War II, placing governance and administration of education at the national level. Further, nationally established curricula and examination are the norm in many nations (Figure 4).

In addition, many countries prescribe teaching methodology, the amount of time for certain content areas and textbook selection. As a result, students in these countries can be said to receive a consistent education, regardless of their community within that country. In comparison, the United States has historically valued local autonomy, downplaying the role of the national government in education. The national role in education has been limited to special populations, leaving decisions about curriculum, assessment and the school calendar to the states and localities. As a result, U.S. education programs are responsive to the needs and demands of the states and local communities. In contrast with international counterparts, instructional practice is not consistent across schools in the United States.

American public schools educate a more heterogenous population by culture, socio-economic status and disability than do many other countries. Far Eastern countries, for example, do not have an ethnically diverse population to educate. In contrast, the United States values education for all citizens to a degree not commonly observed in the international community. Schools in the United States are open to students of all incomes, ethnic groups and disabilities, and local educators strive to meet the diverse needs of these students within a single classroom. In fact, educators are increasingly being asked to offer curriculums that represent the multi-cultural aspects of American society.

Many European and Asian countries practice academic tracking, limiting student choice in the pursuit of academic or vocational post-secondary education. Although many American school divisions practice tracking and perceived ability grouping, students have more opportunities to select academic or vocational programs than many of their international counterparts. Further, different cultures place different societal values on education, resulting in varying parental support for and student attitudes about education. School-business partnerships in many other countries are the cornerstone of vocational education, specifically in the area of apprenticeship programs.

FIGURE 4
INTERNATIONAL COMPARISONS:
CHARACTERISTICS OF EDUCATIONAL SYSTEMS

Country	Compulsory Age for Attendance in 1987	Percentage of Age Group in High School in 1986[1]	Pupils per Teacher[2]	National Curriculum	National Examination[3]
Australia	6-16	96%	14.5	No	No
Canada	6-16	100%	7.5	Provincial	Provincial
France	6-16	95%	24.0	Yes	Yes
Germany (West)	6-18	72%	17.4	State	Yes
Italy	6-13	76%	14.1	Yes	Yes
Japan	6-15	96%	20.7	Yes	Yes
United Kingdom	5-16	85%	20.3	Yes	Yes
United States	6-16	95%	17.3	State	No

Source: DOE analysis of literature and information gathered from Embassy personnel, November 1991.

International Achievement Comparisons

Relatively few comparisons of student achievement between nations have been completed. The International Association for the Evaluation of Educational Achievement (IEA) has collected comparative data since 1960. The results of IEA studies consistently conclude that the total number of instructional hours during a school year has no significant relationship to achievement. Holsinger, in his 1982 review of IEA research, indicates, "The IEA Studies have established that non-scholastic factors account for a considerable proportion of the differences in achievement between students, between schools and between

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1 U. S. Department of Education, National Center for Educational Statistics, Digest of Education Statistics, 1989. This column shows the ratio of those enrolled to total school-age population. For high school, population base is typically ages 13-17.

2 UNESCO Statistical Yearbook, various years between 1981 and 1987, and United States Department of Education, National Center for Education Statistics, Common Core of Data Surveys. Data may include private schools.

3 Each country varies in its definition of national examinations.

countries. It is appropriate to improve schools and factors within schools, but education reform without social and economic reform will not be sufficient to alter radically educational outcomes."

Recently, the International Assessment of Educational Progress (IAEP) and the Gallup Poll have begun to report international achievement comparisons in the areas of math, science and geography. The data from these studies indicate that the science and mathematics achievement results of those American students evaluated are lower than the achievement results of students in many other industrialized nations. Further information regarding the international achievement studies can be found in Figure 5.

Cross national comparisons of educational performance are confounded by differences in educational practices in the countries sampled. These differences include: student population sampled, curricula and sequence of courses offered, test format, test language and specific translations of test vocabulary. Achievement testing on a relatively small number of select students will result in higher achievement scores than testing a large number of students. Many countries limit student access to specific courses, thereby selecting a small number of students who will be tested on certain content areas. The varying curricula in the international community also result in different areas of emphasis, creating different profiles of achievement (e.g., some countries do not provide calculus until college, whereas others require it of all students in high school). As tests are developed and translated into various languages, two problems may emerge: the language selected for administration in countries that are multi-lingual may preselect the highest achieving students or the translation may compromise the complexity of the test items. A final caution regarding the use of international comparisons is the assessment of certain subjects at the secondary level which are not generally completed until the post-secondary level in some countries.

FIGURE 5
INTERNATIONAL ACHIEVEMENT STUDIES

Organization	Population Studied	Results
MATHEMATICS		
IEA, 1981-82	8th and 12th Grades	U.S. eighth Grade below average on algebra, geometry and measurement; above average on arithmetic and statistics U.S. 12th Grade next to last among 13 countries (Belgium, Canada, England, Wales, Finland, Hungary, Israel, Japan, New Zealand, Scotland, Sweden, Thailand, United States)
IAEP, 1988	7th and 8th Grades	U.S. among lowest in mathematics; nine percent of U.S. students able to apply concepts U.S. students last in proficiency of six countries (Canada, Spain, United Kingdom, Ireland, Korea, United States)
SCIENCE		
IEA, 1983-86	4th, 5th, 9th, 10th, 12th Grades	U.S. ten year olds ranked in the middle of 17 countries (Australia, Canada, England, Finland, Hong Kong, Hungary, Italy, Japan, S. Korea, Netherlands, Norway, Philippines, Poland, Singapore, Sweden, Thailand, United States) U.S. 12th Grade ranked low in biology, chemistry and physics
IAEP, 1988	7th, 8th Grades	12% of U.S. students able to apply intermediate scientific principals U.S. ranked next to last in proficiency of six countries (Canada, Ireland, Korea, Spain, United Kingdom, United States)
GEOGRAPHY		
Gallup Organization, 1988	18 to 24 year olds	American students rated last in results on geography knowledge in nine countries (Canada, France, West Germany, Italy, Japan, Mexico, Sweden, United Kingdom, United States)

National

The current practice in the United States is to utilize a traditional school year (Figure 6). The majority of states and territories currently mandate 180 days of instruction per year. The number of allocated instructional days ranged nationally from 174 to 182 days in 1990 (Education Commission of the States, 1991). Virginia's policy of 180 days is consistent with the national trend, as 35 states require 180 days in the school year. Only Ohio mandates more than 180 days, requiring 182 days.

All states and territories have policies delineating minimum hours or days of instruction per year. Many states also mandate minimum pupil/teacher contact hours. Forty states permit state approved exceptions to the minimum time requirements. Following the release of the report of the National Commission on Excellence in Education in 1983, 35 states identified increasing instructional time as an option for their state. However, significant changes in the length of the school year in the United States are not evident in current state reports. Efforts to increase instructional time in some states have been supported by state boards of education, frequently stalling in response to the fiscal implications.

FIGURE 6
COMPARISON SAMPLE OF STATES WITH MINIMUM DAYS PER YEAR POLICY STANDARD

Tennessee	Texas	South Carolina	Virginia	Ohio	Maine	New Jersey
requires 180 days per year;	requires 175 days per year;	requires 180 days per year;	requires 180 days per year;	requires 182 days per year;	requires 175 days per year;	requires 180 days per year;
6.5 hours of instruction per day = 1170 hours per year.	7.0 hours of instruction per day = 1225 hours per year.	6.0 hours of instruction per day = 1080 hours per year.	5.5 hours of instruction per day = 990 hours per year.	5.5 hours* of instruction per day = 1001 hours per year. *secondary	5.0 hours of instruction per day = 875 hours per year.	4.0 hours of instruction per day = 720 hours per year.

Source: Council on Chief State School Officers. (1990), Policies and practices survey, Author.

Since 1989, Massachusetts Board of Education files a bill yearly with the Massachusetts legislature to increase the length of the school year by up to 40 days in pilot areas. The bill has

not passed, to date, largely due to the state's financial situation. The Board's 1992 Legislative Proposal tied the extended school year pilot to an act developing the public school as a community center. Elementary schools serving high numbers of students deficient in basic skills are targeted to determine if the extended school year is an effective approach for meeting the needs of these student.

The Maryland Board of Education identified extending the school year from 180 to 200 days as one of its "Strategies for State Action" (adopted in October 1990) to accomplish Maryland's goals for public education. The Board indicated that the explosion of knowledge and skills, particularly in mathematics, science and technology, demanded that more time be available for student learning. Localities would need to implement an extended school year in conjunction with qualitative improvements to education instruction and administration. However, no effort to extend the year had been initiated by the fall of 1991.

Community Support and the Length of the School Year:

National experiences with attempts to extend the school year highlight the importance of community support in development of the school year calendar. A number of state legislative initiatives to increase the length of the school year have been stalled by community opposition rather than fiscal limitations. The importance of communities in driving decisions regarding extending the school year can be seen in the examples of two school divisions in North Carolina and two schools in New Orleans, Louisiana.

In 1983, the North Carolina Board of Education introduced the Time for Learning Project, a three-year pilot extending the school year from 180 to 200 days and extending the school day from six hours to seven hours. Although 30 school districts originally expressed initial interest, only two districts (Polk and Halifax County) participated. Polk County withdrew from the project during the second year due to a lack of community support. Evaluation revealed the greatest support for the Polk County project was among parents with the highest level of schooling. Halifax County completed the three year trial, but there was divided opinion among school staff and members of the community on the success of the effort. In both communities, teacher opposition was significant, as a number of teachers expressed resentment about the impact on their time. Teacher absences increased in the first year of the pilot in both localities.

The North Carolina Department of Public Instruction evaluated the project and found limited improvement in student achievement on the North Carolina Annual Testing Program. However, the evaluators also identified these tests as weak indicators of student achievement. Further, evaluators cautioned that the complete effects could not be seen in the short term, rather that the entire twelve years of instruction would be needed to fully identify the impact of such a change in allocated time. Evaluators cited the lack of sufficient time for planning as a partial reason for the project's failure to demonstrate success and gather community support. Currently, 180 days of instruction is the norm for North Carolina school divisions.

In contrast with the North Carolina experience, a project to extend the school year project in two elementary schools in New Orleans received widespread community support (Figure 7). The 220 day school year, designed in response to the needs in the city community, entered its third year of operation in 1991-92. However, the impact of the increased time on student achievement is not clear. After one year, scores on standardized tests increased only marginally at both schools. Unfortunately, the high financial cost of operating an eleven month school year may limit the community's ability to support the program for more than three years.

FIGURE 7
COMMUNITY SUPPORT FOR
EXTENDED SCHOOL YEAR PROGRAMS

Polk County, N.C.	Moton and Lockett Elementary Schools, New Orleans
■ 1983: volunteered to participate in 3 year pilot to extend school year to 200 days and school day to 7 hours	■ 1989: 11 month school year initiated for ages 4 to 11
■ In the second year of the project, the school board members were unseated, the superintendent replaced and the new board voted to abandon project	■ student enrollment draws from housing projects
■ Local opposition was triggered by the perception that school officials implemented the experiment without involving the community	■ community support: schools viewed as safe haven
■ other objections centered on reduction of free time options for students and teachers	■ academic results of longer school year, as measured by standardized test scores have not been impressive; teachers note gains in self-confidence
■ preliminary results suggested short term student achievement gains on standardized tests	■ better attendance, lower suspension and expulsion rates reported

Source: DOE analysis of research.

Virginia

As in most states, Virginia mandates the length of the school year. The Code of Virginia (§22.1-98) establishes the minimum length of the school year as 180 days or 990 hours in any school year. The mandated length of the school year in Virginia parallels the national trends, requiring a seven month school year at the turn of the century (146 days in 1913), increasing gradually to 170 days in 1933, and finally to 180 days in 1950.

The state Board of Education is authorized to waive these requirements if school divisions are forced to close for more than 15 days due to severe weather, energy shortages or power failure. **Regulations Governing Reduction of State Aid When the Length of the School Term is Below One Hundred Eighty School Days** promulgated by the Board of Education indicate that school divisions will be expected to "exhaust every possibility for making up lost days" prior to requesting a waiver (§1.3).

In further recognition of the scheduling difficulties encountered in some areas of Virginia which experience significant periods of adverse weather, the Code was amended in 1988 to allow for 180 days or 990 hours of instruction. This amendment established the concept of "banked time." School divisions may use banked time for missed days, hour for hour, days missed. Hours over and above the required 5-1/2 hours of instructional time plus lunch time per day may qualify as "banked time." According to Department of Education records, 29 of 135 school divisions banked time for future use in 1990-91.

In 1986, the Virginia General Assembly responded to the interest of the travel and tourism industry by delaying school openings in the fall. At that time, the Code §22.1-79.1 was amended to require that the first day of school for students not be set until after Labor Day. Despite concerns about limits on local autonomy, this section was not repealed in 1988, as specified by the 1986 legislation. Bills have been introduced repeatedly in the General Assembly to repeal this provision, yet have failed to pass. The Code does authorize the Board of Education to waive these requirements for good cause. In 1991, 19 of 135 school divisions received waivers to start school before Labor Day, citing the impact of severe weather conditions in those divisions.

The length of teacher contracts is also established by **Regulations Governing Contractual Agreements with Professional Personnel** as promulgated by the board of Education. A ten-month contractual period is defined as 200 days, to include:

- "(A) 180 teaching days, ...

- (B) 10 days for activities such as teaching, planning, ... evaluation, completing records and reports ..., committee assignments, and conferences,

- (C) 10 days for continuation of activities under (a) and (b) and/or other activities as assigned by the local school board." (§1.5).

These regulations ensure teacher contracts meet the mandated allocated time, yet allow certain local flexibility for increasing teaching time.

To summarize, through the Code and Board regulations the Commonwealth assumes responsibility for establishing the parameters for allocating instructional time in Virginia public schools. A minimum allocation is required. However, the Commonwealth allows some local autonomy, providing flexibility to local school divisions whenever possible.

Local School Division Practice: The results from a survey of Virginia school divisions indicate that most school divisions (84 percent) offered exactly 180 days of instruction during the 1990-91 school year (Appendix B). However, 21 school divisions (16 percent) reported that more than 180 days of instruction were provided at the kindergarten through secondary level. No school division provided more than 185 days (Figure 8).

FIGURE 8
VIRGINIA SCHOOL DIVISIONS PRACTICE:
LENGTH OF THE SCHOOL YEAR

180 Days	107 Divisions
181 Days	5 Divisions
182 Days	7 Divisions
183 Days	7 Divisions
184 Days	1 Division
185 Days	1 Division

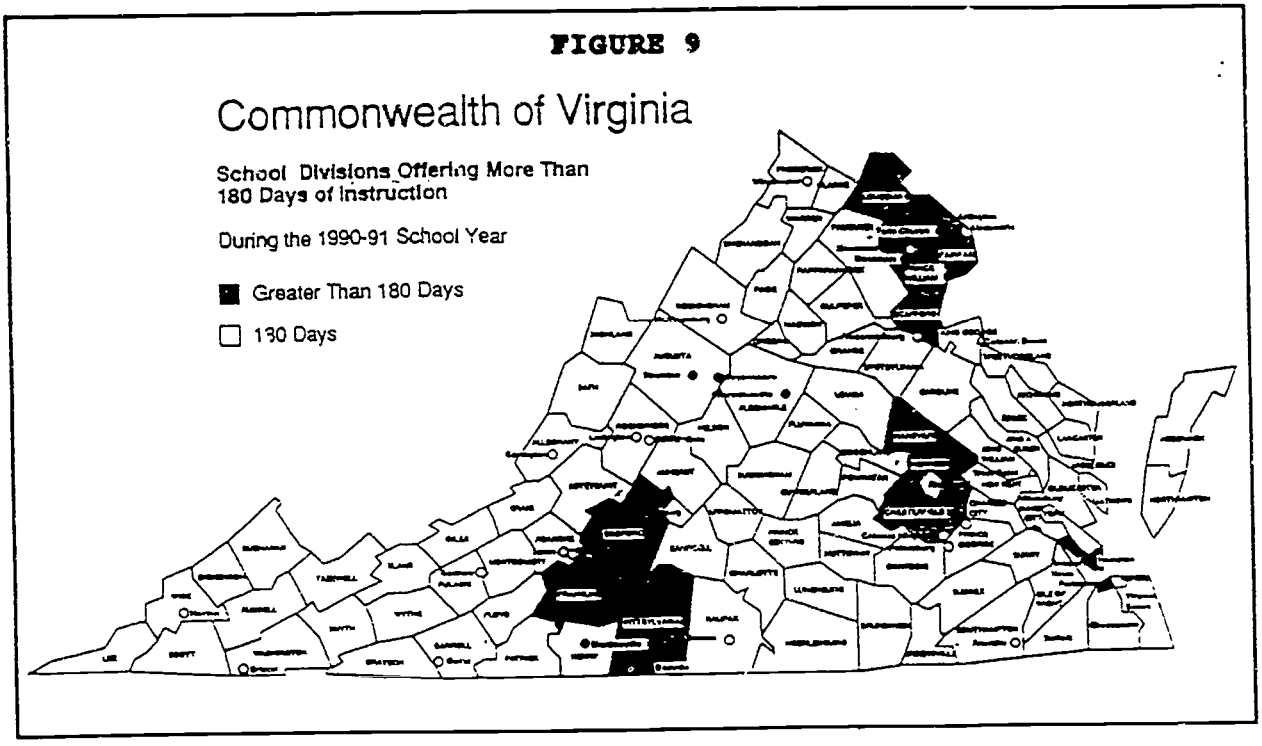
Source: DOE analysis of school division survey, July 1991.

There has been a small increase in the number of school divisions in Virginia extending the school year beyond 180 days. A 1987 legislative study conducted by the Department of Education examined the use of seven period days. This study identified seven divisions which provided more than 180 days during the 1984-85 school year, compared with 21 divisions in 1990-91. In addition, a number of local education officials have begun investigating options for increasing instructional time in their schools, including extending of the school year.

Analysis revealed no statistically significant relationship between divisions providing additional days in the school year and division per pupil spending. Further, the 21 divisions offering more than 180 instructional days represent an equal mix of large core cities, small cities, urban counties, suburbanizing counties and rural counties.[4]

However, a review of these divisions does suggest that there are certain small geographical clusters of school jurisdictions where 180 days are exceeded (Figure 9). This geographic distribution suggests that certain regions may be more amenable to extension of the traditional school year. This may reflect the identified effect of community values, in that decisions regarding school calendars are a reflection of the public norms and values within a larger community setting.

FIGURE 9



Extended School Year - Special Education

Whereas local school divisions establish the length of the school year for the general student body, the individual needs of students with disabilities direct the implementation of special, individualized extended school year programs for certain students. The passage of the Education for All Handicapped

[4] Classifications of jurisdictions are as defined in an analysis conducted for the Efficiency in the Use of Public Education Funds Commission.

Children Act in 1975[5] (Public Law 94-142) afforded all students with disabilities the right to a free and appropriate education. This legislation, as interpreted through litigation, includes extended school year (ESY), the provision of special education and related services beyond the length of the traditional school year. The right to receive ESY - Special Education services is not automatically granted to students with disabilities, rather, it is based upon each student's Individualized Education Program (IEP).

ESY - Special Education is not a summer school program. Summer school refers to programs offered by a school district during the summer, with a focus on remediation, acceleration or enrichment for students in regular education. Regular summer school programs are typically optional and are not developed in response to the individual needs of students in special education.

In contrast, ESY - Special Education programs are available for all students eligible for special education. Students with severe-profound handicaps, health impairments or emotional disturbance receive ESY - Special Education most frequently. Regression of skills is cited as the most frequent reason for providing ESY services. However, because all students experience regression, the degree of regression and the projected time for recoupment must be individually considered for students eligible for special education. In addition, school personnel generally review overall student behavior and physical problems and the availability of alternate resources within the home or community when making decisions regarding the appropriateness of ESY services.

The local school division survey reveals that some school divisions provide special education services during the summer months (Figure 10).

FIGURE 10
VIRGINIA SCHOOL DIVISION PRACTICE:
SUMMER SPECIAL EDUCATION PROGRAMS

Elementary	37
Middle	29
Secondary	26

Source: DOE analysis of school division survey, July 1991.

[5] Now termed the Individuals with Disabilities Education Act (P. L. 101-476).

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Public Opinion

Local public support is an important factor in successfully altering to the traditional school calendar. An examination of school districts that have implemented a longer school year or school day indicates that community groups, citizens with and without students in school, tourism representatives, and teachers may oppose the change. In order to gauge the potential response to any Virginia initiative to extend the school year, Virginia public opinion was gathered and national public opinion reviewed (Figure 11).

FIGURE 11
PUBLIC OPINION QUESTIONS

Gallup/Phi Delta Kappa Poll, May 1991

In some nations, students attend school as many as 240 days a year as compared to about 180 days in the U.S. How do you feel about extending the public school year in this community by 30 days, making the school year about 210 days or ten months long?

Virginia Commonwealth Poll, July 1991

Currently there are 180 days in the school year. Do you think that the number of days in the school year should be increased, decreased, or should the number of days in the school year stay the same as now?

Virginia School Division Survey, June 1991

In your school division, has there been any discussion (by the following groups), regarding an extended school year (i.e., increasing the number of instructional days to exceed 180 days)?

In your school division, do any of the following groups have a formal position regarding an extended school year (i.e., increasing the number of instructional days to exceed 180 days)?

National Public Opinion

The "1991 Gallup/Phi Delta Kappa Poll of the Public's Attitudes Toward the Public Schools" provides information about national public opinion on an extended school year. The Gallup Poll includes questions about extending the school year. Since 1982, the majority of respondents have consistently opposed this

option. In 1991, for the first time, a small majority (51 percent) of those surveyed favored a longer school year. Opposition (42 percent) to a longer school year declined marginally since the mid-eighties.

The Poll asked the following question: "In some nations, students attend school as many as 240 days a year as compared to about 180 days in the U.S. How do you feel about extending the public school year in this community by 30 days, making the school year about 210 days or ten months long?" Survey results indicate that a longer school year is particularly favored by college graduates (62 percent favor, 33 percent oppose), professionals and business people (60 percent favor, 37 percent oppose), and people in the western region of the U.S. (59 percent favor, 36 percent oppose).

The question can provide only general information for interpreting the nation's preferences on extended school year, and does not represent the opinions of any specific community. The findings do suggest that the general public may be more responsive to increasing the number of school days than in previous years. As phrased, the question establishes a benchmark for comparing the U.S. public school year against "some nations" which provide up to 240 days a year. Therefore, this comparative statement may prompt some respondents to favor an extended school year.

Virginia Public Opinion

The Virginia Commonwealth Poll questions allow for identifying public opinion toward the school calendar and instructional time in Virginia. "Currently there are 180 days in the school year. Do you think that the number of days in the school year should be increased, decreased, or should the number of days in the school year stay the same as now?" A majority of those surveyed think that the school year should remain the same. Over two-thirds (67 percent) of the general public favor keeping the current 180 day school year. Those with children in public schools are less supportive of adding additional days to the school year; more than three-fourths (77 percent) of these respondents say that the number of days should not be changed. Only 18 percent of parents with children in Virginia public schools favor a longer school year, while the general public is slightly more in favor of adding more days (24 percent).

The survey question does not establish any context or circumstances surrounding the number of days in a school year, such as international comparisons, improved student performance, or program changes in the school curricula. The survey does not ask respondents to give any supporting reason for their preferences. Therefore, no conclusions can be made regarding issues of concern or specific viewpoints of the respondents.

However, the demographic characteristics of the survey responses do provide some contextual information for interpreting public opinion. The results suggest that as education and family income increase, individuals respond more favorably to increasing the number of days in the school year. The strongest response rates favoring a longer school year come from families whose income is $70,000 and above, and those with at least an undergraduate degree (44 percent and 37 percent respectively). In general, age and race do not significantly influence responses, although those aged 65 and older were more likely to answer "don't know."

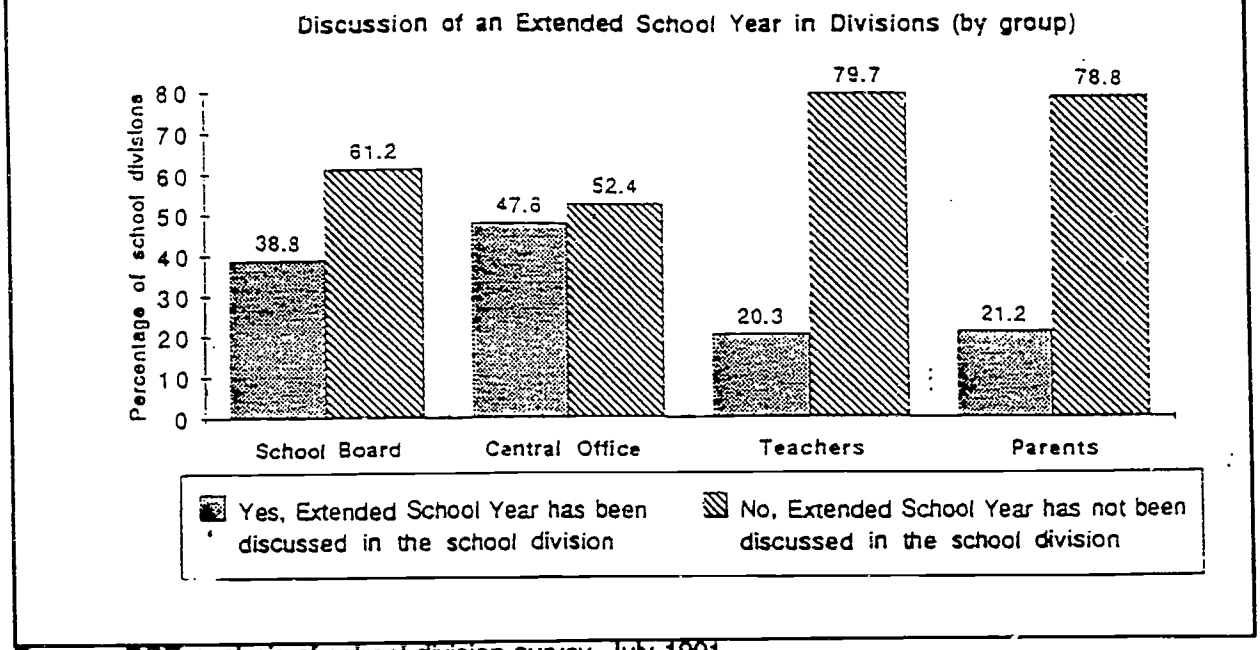
Support for a longer school year is higher among respondents from the Washington, D.C. suburbs (33 percent) and the Tidewater (34 percent) areas than other parts of the state. The least support comes from the western region (15 percent). The south central and northwestern regions show percentages that are slightly lower than the general public's response to the same question. (The five regions designated in the Commonwealth Poll's demographic tabulations are identified in Appendix F.)

Interest Group Opinion in Virginia School Divisions

The survey of Virginia local school divisions provides information regarding stakeholder opinions about changes to instructional time using the questions, "In your school division, has there been any discussion (by the following groups), regarding an extended school year (i.e., increasing the number of instructional days to exceed 180 days)?". Central office administrators report on the general attitudes and positions taken by four stakeholder groups in their education community: the school board, central office administration, teachers, and parents.

Results indicate that although a majority of school boards (61 percent) are having no discussion addressing additional instructional days, almost 40 percent are currently discussing the issue. In general, central office administrators and school boards are at least twice as likely to be discussing additional days to the school year, than are teachers and parents (Figure 12). The survey found little discussion on extended school year being generated by teachers and parents.

Figure 12



Source: DOE analysis of school division survey, July 1991.

The survey used the question "In your school division, do any of the following groups have a formal position regarding an extended school year (i.e., increasing the number of instructional days to exceed 180 days)?" to identify the number of formal positions taken. An overwhelming majority (approximately 93 percent) of the interest groups have no formal position on extended school year. Eight of 125 school boards were identified as having a formal position (seven positions favor more days in the school year). However, the issue is being discussed by at least 47 school boards and 59 central administrative offices across the state.

Virginia Stakeholders

In the conduct of this study, the Department of Education requested input from a variety of Virginia education stakeholder organizations on issues related to instructional time and student learning. Organizations maintain strong support for maintaining local flexibility in the establishment of the school calendar. The Virginia School Boards Association holds the position that "changes in the school calendar should be the prerogative of the local board." The Virginia Retail Merchants Association echoes this sentiment, "we would support local option in as many areas as possible."

Education administrators that have been involved in efforts to increase instructional time recommend that obtaining community approval requires adequate planning, early public involvement and debate, and a phase-in period for substantive change. The relationship between the school year, the family, the lives of the students and teachers, and the community suggests that public opinion be reviewed before initiating any change in the school calendar.

Summary

Virginia school administrators, like their counterparts throughout the nation, generally maintain the traditional 180 day calendar. The experiences and practices in school divisions throughout the country highlight the importance of initiating school calendar reform at the level of local policy makers. As local education officials review the instructional practice within their schools, an increasing number are investigating the allocation of instructional time and its impact on student learning. Those localities with the greatest degree of community support have enjoyed the most success in implementing any such change.

International comparisons regarding the length of the school year trigger discussions regarding the varied school calendar practices. However, such comparisons fail to account for the variances in the population educated, the perceived value of education, the nature and quality of instructional practice and the research relating instructional time to student learning.

Education professionals have long recognized that certain students who are educationally at risk benefit from increased time for instruction. Virginia school divisions provide extended school year services for individual students eligible for special education, as defined by the students' Individualized Education Program. Other divisions design supplementary programs for students requiring additional time for instruction. These local decisions highlight the importance of maintaining local autonomy in the provision of education programs, to allow responsiveness to the needs of the local student population.

Localities contemplating extensions to the school year must consider the purpose for the additional time. The nature of the instruction provided during any addition of time will depend upon whether the goal is to provide new courses, expand upon material covered in current courses, or enhance student mastery of existing material. The attainment of any of these options is dependent upon an integration of allocated time and instructional goals and curriculum.

Extending the school year is an option for consideration in the education reform movement. There is no certainty that this action alone would result in improved student achievement or close the gaps internationally. Given the significant financial and social barriers to change, more time may have limited impact on student learning unless there is a corresponding change in educational practice.

JAPAN

Population

- Homogeneous population: most people share the ethnic, racial, and religious background
- Poverty levels are low

Educational Governance

- The central government controls education through the Ministry of Education
- At the prefecture level (akin to our state level), the superintendent's duties are principally administrative and coordinative
- Local schools and staff have "autonomy" to run schools, provided ministry curricula is followed

Curriculum Requirements

- Secondary curriculum requires consist of a thorough knowledge of
  - language, syntax, grammar
  - foreign language
  - geography
  - history
  - mathematics
  - science
  - music
  - art

Tracking

- Almost all students enroll in public high schools, but must take an entrance examination to determine which high school they will attend
- High schools are selective, accepting students based on entrance examination scores
- All students attending university must pass a national examination typically, in their senior year of high school
- The Japanese mother takes to works diligently to help the child with school

ENGLAND

Population

- In the past, people shared ethnic, racial, and religious backgrounds, but the country is becoming increasingly heterogeneous.
- Rural area may be homogenous.
- Cities are often multiracial and multicultural.
- Poverty exists in urban areas and some rural locations.

Educational Governance

- The central government established a national curriculum through the Department of Education and Science
- At the local level, parents choose which school their child attends
- Student achievement will be assessed at ages 7, 11, 14, and 16 through written and practical tests

Curriculum Requirements

- Secondary curriculum requires.
  - english
  - science
  - history
  - foreign language
  - math
  - design and technology
  - geography
  - art
  - music
  - physical education
  - religious education (may opt out)

Tracking

- Student testing at age 14 will help decide what subjects to study for State exam at age 16.
- At age 16 a student may continue education, leave school, or go to a Youth Training School.

GERMANY

Population

- Most people share ethnic, racial, and religious backgrounds; only small groups of immigrant population
- Increased poverty levels anticipated as a result of unification

Educational Governance

- State/government controls the educational system
- Each state government develops its own curriculum
- All states follow the same format for the national examination and the "Abitur" examination

Curriculum Requirements

- Secondary curriculum requires
  - language, literature, and the arts
  - social sciences
  - mathematics
  - natural sciences
  - technology

Tracking

- Students going to a university attend Gymnasium schools through grade 13
- Students qualify for university on basis of national Arbitur examination

UNITED STATES OF AMERICA

Population

- Heterogeneous population: many different ethnic, racial, and religious backgrounds; education provided to all students with disabilities
- Levels of poverty are increasing, especially for the younger age groups.

Educational Governance

- Federal government has established national education goals and distributes some federal funds with accompanying mandates to states
- Each state develops its own educational budget
- Local school divisions are autonomous relative to many curricular and budgetary decisions

Curriculum Requirements

- Secondary curriculum requires
  - history
  - government
  - science
  - mathematics
  - foreign languages
  - language arts
  - music and art electives
  - physical education

Tracking

- All students attend high school, without placement examinations
- College entrance examinations required by many colleges or universities

Chapter IV

EXTENDED SCHOOL DAY

Overview

Lengthening of the school day is a second option for increasing the amount of time allocated for instruction. School divisions throughout the United States use tradition parameters for the school day.

The current instructional day of approximately five and one-half hours generally results in a mid-afternoon release time. The length of the school day in the United States is influenced by the number of daylight hours. Historically, daylight hours were used by students to travel to and from school, with time left for farm and household chores. Our society is no longer restricted to travel during daylight hours and most school divisions provide transportation for students. However, communities value safety and generally do not support having children wait for school buses during pre-dawn hours or walking home after sunset. In some school divisions, many students ride the bus over one hour each way. Travel time frequently encroaches into the time available for instruction at school, at home or within the community. School administrators are sensitive to this issue and express concern that lengthening the school day may contribute to student stress and fatigue.

As the need for children to take responsibility for chores decreased, families, communities and schools expanded extracurricular after school offerings. These afternoon hours have become important for many school related athletic, club and musical activities. For many students, these activities are most important, and serve to keep them interested in school. Many families use this time for student enrollment in community based athletic, arts or organization activities. In addition, many secondary students rely on the available after school hours for employment, supplementing personal or family income and gaining work experience.

Any consideration of lengthening the school day should address the amount of increased time required to achieve a gain in student achievement. In her 1984 report on time and achievement, Karweit investigated the amount of additional time required to improve reading comprehension in second grade students. Her analysis suggests that an additional 60 minutes of instruction per day would result in a quarter of a standard deviation increase on a standardized test (e.g., the equivalent of 25 points on the Stanford Achievement Test). The research reveals mixed evidence that increasing instructional time within the day offers improved student learning. The strongest relationship suggests short term learning gains for students receiving full-day kindergarten programs.

Decisions about potential increases in instructional time during the day must consider the students' ability to maintain concentration in a learning activity. Psychological research suggests that as the amount of time devoted to instruction increases, learning fatigue or learning saturation occurs, especially when instruction is not matched to student learning style and is without appropriate breaks.

This chapter discusses national and Virginia practice regarding the allocation of time during the school day for instructional purposes. Public opinion regarding this practice is also addressed. This chapter does not address the provision of before or after school programs designed for purposes of child care.

Educational Practice

The length of the school day varies in the international community. Most countries utilize a five-to six-hour school day, allowing time for transportation. A longer day is offered in a few countries. Other countries operate a more leisurely day than is typical in the United States. For example, longer lunch periods are common in Taiwanese elementary schools, and Japanese elementary schools schedule short morning and afternoon breaks.

National

Most states and territories in the United States have policies mandating minimum hours of instruction (Figure 13). Although there is a wide range in mandated hours 3.0 to 7.5 hours), the typical mandate is for five and one-half hours. Several states and territories mandate longer days at the secondary level. Only four states have no mandate addressing the length of the school day for grades 1 through 12, and only seven states have no mandates on the length of kindergarten.

As graduation requirements have increased throughout the country, there has been some interest in providing additional opportunities for high school students to obtain the necessary credits for graduation. As a result, many school divisions have added a seventh period to the day at the secondary level.

FIGURE 13
MINIMUM POLICY STANDARDS FOR HOURS OF INSTRUCTION
ACROSS THE UNITED STATES

	Kindergarten 1/2 day	Kindergarten Full	Grades 1-3	Grades 4-6	Grades 7-8	Grades 9-12
Range of hours	2.0 - 5.5	2.5 - 7.0	4.0 - 7.5	4.0 - 7.5	4.0 - 7.5	3.0 - 7.5
Mean	2.7	4.9	5.3	5.5	5.7	5.6
Median	3.0	5.0	5.3	5.5 - 6.0	6.0	6.0
Mode	2.5	5.0	5.0	5.0	5.5	6.0
Virginia	3.0		5.5	5.5	5.5	5.5

Source: Council on Chief State School Officers. (1990). Policies and practices survey, Author.

While there is general consistency across the country regarding the length of the school day for grades 1 through 12, there is less consistency relative to kindergarten programs. Full and half-day programs are offered throughout the United States. Twenty-one states mandate the length of the school day for both full and half-day kindergarten programs; 9 states have mandates regarding full-day programs only and 16 have mandates only addressing half-day programs.

The Standards for Accrediting Public Schools in Virginia (1988) prescribe the length of the school day in Virginia: five and one-half hours for grades 1 through 12, and 3 hours for kindergarten, excluding meals (Standard C, Criteria 11). The standards permit development of alternative schedules for meeting these requirements as long as the minimum standards (990 hours for grades 1 through 12 and 540 hours for kindergarten) are met. These standards also prescribe that students shall maintain a full-day schedule unless a waiver is granted by the local superintendent of schools. Further flexibility is provided for alternative education programs, according to **Board of Education Regulations Governing Alternative Education.**

Most Virginia school divisions exceed the state required minimum number of hours in the school day (Appendix B). The range of time exceeding five and one-half hours varies both among school divisions and between school levels. The school division survey indicates that only 17 to 20 percent of divisions (depending on school level) have exactly five and one-half hours of instruction a day for grades 1 to 12. As illustrated in Figure 15, a majority of divisions offer increased time, ranging from fifteen minutes to more than one hour a day. Very few divisions offer an additional hour or more. School divisions have indicated that their communities generally have not supported efforts to modify the length of the school day.

FIGURE 15
PERCENTAGE OF VIRGINIA SCHOOL DIVISIONS OFFERING MORE THAN FIVE AND ONE-HALF HOURS OF INSTRUCTION IN A SCHOOL DAY 1990-91 SCHOOL YEAR

Range of instructional time in the school day exceeding 5½ hours	School level		
	Elementary n=123	Middle n=117	Secondary n=122
Does not exceed 5½ hours	20.3%	17.1%	17.2%
1-14 minutes	12.2%	5.1%	5.7%
15-29 minutes	35.8%	27.4%	24.6%
30-59 minutes	30.1%	43.6%	43.4%
60-89 minutes	1.6%	6.0%	8.2%
over 90 minutes	0	< 1%	< 1%

Source: DOE analysis of school division survey.

In general, secondary and middle schools are more likely to operate a longer school day than elementary schools. Approximately 50 percent of divisions offered a six hour or longer instructional day at the secondary and middle school level, compared to only 31 percent at the elementary school level. Although survey data does not provide information about the rationale for allocating additional instructional time, the results suggest a general interest in allocating more time for high and middle school programs.

The survey indicates that a strong majority of school divisions offer well beyond the required three hours of instruction per day for kindergarten. Only 13 percent of school divisions provide the minimum of three hours per day for kindergarten, while more than three-fourths (77 percent) of divisions offer a five hour instructional day or longer. Figure 16 shows the range of instructional time in kindergarten offered by Virginia school divisions.

FIGURE 16
PERCENTAGE OF VIRGINIA SCHOOL DIVISIONS OFFERING MORE THAN THREE HOURS OF KINDERGARTEN INSTRUCTION 1990-91 SCHOOL YEAR

Range of instructional time in a school day exceeding 3 hours	Kindergartens n=122
Does not exceed 3 hours	13.1%
1-29 minutes	5.7%
30-59 minutes	1.6%
60-89 minutes	1.6%
90-119 minutes	0
120-149 minutes	6.6%
150-179 minutes	41.8%
128-209 minutes	26.2%
210 minutes or over	3.3%

Source: DOE analysis of school division survey.

The survey results show a strong local commitment to offering full-day kindergarten programs. Additional examination of the divisions providing a three-hour kindergarten program reveals that approximately 10 of the 20 divisions offering a three-hour kindergarten program are characteristically urban or suburban jurisdictions with large and growing student populations.[6] Nine of the 20 divisions had high enrollments in kindergarten, ranging from 1,329 students to 9,295 students per division for the 1990-91 school year. Therefore, personnel, facilities, and transportation issues may influence decisions to

[6] The following school divisions reported offering a three-hour kindergarten program for the 1990-91 school year: Alexandria, Arlington, Chesapeake, Colonial Beach, Covington, Fairfax County, Frederick, Hampton, King George, Loudoun, Manassas City, Manassas Park, Norfolk, Page, Poquoson, Prince William, Radford, Roanoke City, Virginia Beach, York. Classifications of jurisdictions are as defined in an analysis conducted for the Efficiency in the Use of Public Education Funds Commission.

offer half-day programs. This study's preliminary review of the data suggests further examination may be useful to identify the impact of increased kindergarten time on student learning.

"Before or After School" Programs: In addition to the standard instructional day for all students, many Virginia school divisions offer supplemental programs which are held either before or after the regular school day. These "before and after school" programs are administered by the division to provide either instructional or other services. Program enrollment is voluntary. Survey data indicate that approximately twenty percent of Virginia school divisions offered non-academic programs (e.g., day care) at the elementary and middle school levels.

It is more common for "before or after school" programs to be offered for academic purposes. The survey showed that additional before and after school instructional programs were offered at the elementary, middle, and secondary levels by 40 percent, 51 percent, and 50 percent of school divisions, respectively. Although the survey does not provide information on program content or length, it reveals that programs are held primarily for academic enrichment (non-credit earning courses), remediation in a subject area, acceleration (earning additional credit hours), and providing additional instruction to students for whom English is a second language (Figure 17).

FIGURE 17
NUMBER OF SCHOOL DIVISIONS OFFERING
BEFORE OR AFTER SCHOOL PROGRAMS FOR INSTRUCTION
1990-91 SCHOOL YEAR

Instructional purpose	Elementary level	Middle level	Secondary level
Academic enrichment	34	39	41
Remediation	29	37	27
Acceleration	5	7	19
English as a Second Language	6	4	4
Other	10	9	11

Source: DOE analysis of school division survey, July 1991.

Public Opinion

The Gallup Poll has surveyed the nation's attitudes since 1982 regarding a longer school day since 1982. The 1991 Gallup Poll asked: "How do you feel about extending the school day in the public schools of this community by one hour? Do you favor or oppose this idea?" The findings reveal there is no majority currently favoring (46 percent) or opposing (48 percent) an extra hour in the school day. While there has never been a majority favoring an additional hour in the school day, the poll indicates a slight increase in those favoring the idea in recent years.

Virginians' preferences about hours in a school day reflect an overall satisfaction with the current length of the school day. A majority of the general public (67 percent) surveyed by the Virginia Commonwealth Poll say that there should be no change in the amount of instructional time in the school day. Those with children in public schools (75 percent) are stronger in their belief that the school day should remain the same. Approximately one-fourth of the general public report that they would favor a longer school day than the current five and one half hours, compared to only one fifth of those with children in public schools. Very few individuals (three percent) believe that the school day should be shortened.

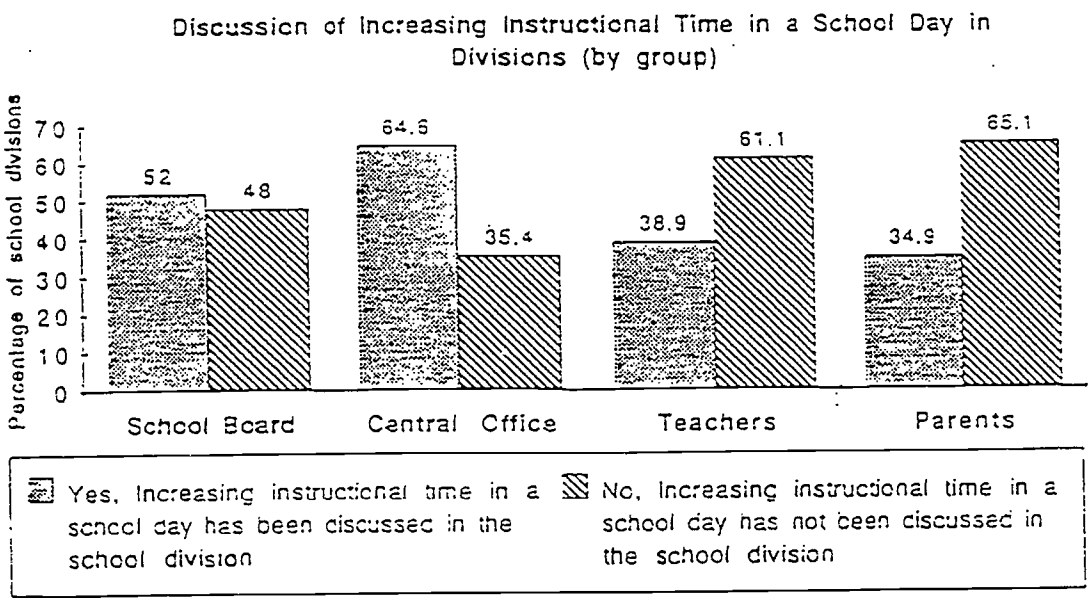
The survey question does not address student performance or curricular changes. It only address the hours of instruction per day. The Commonwealth Poll questioned, "Currently, most schools in Virginia have about five and a half hours of instructional time per day. Would you favor making the school day longer, shorter, or having the school day remain as it is now?"

Opinions vary significantly according to the respondents' place of residence. Residents from the Washington, D.C. suburbs represent the strongest response rate favoring a longer school day (48 percent). The state's western and northwestern residents least favor a longer day (11 percent and 15 percent favoring respectively.) The south central and Tidewater regions have percentages similar to the general public's response to the question (22 percent and 28 percent, respectively).

Furthermore, as family income and education levels increase, response rates favoring a longer school day increase. Conversely, as family income and education levels decrease, respondents are more likely to favor the current five and a half hour school day. For example, only ten percent of those with no high school diploma favored a longer school day, compared to 38 percent of those with at least an undergraduate degree. A strong percentage of those with no high school diploma (74 percent) feel that the school day should remain the same as now, compared to those with at least an undergraduate degree (53 percent).

Increasing the lengthening the school day is a current topic of discussion among the majority of Virginia's school boards and school division administrators. The survey question, "In your school division, has there been any discussion (by school boards, central administrators, teachers, or parents), regarding the increase of instructional time in a school day?" reveals that 52 percent of school boards and 64 percent of administrators are discussing a longer school day. Statewide, teachers and parents are less likely to discuss the issue than are school boards and administrators. However, these groups are addressing the topic in at least one-third of school divisions. Figure 18 details the percentages of interest groups in school divisions currently discussing a longer school day.

FIGURE 18



Source: DOE analysis of school division survey, July 1991.

In addition, the survey findings reflect that a strong majority (at least 80 percent) of the four interest groups have no formal position. Of the 19 school boards and 21 central administrative offices who report formal positions on the issue, only three divisions in each group report opposition to a longer school day. Survey respondents report that a very small percentage of teacher (11 percent) and parent (6 percent) groups have a formal position on increasing time in the school day. The findings reflect general support or interest in increasing the length of the school day on the part of many school boards and central administrators. Neither teachers nor parents currently share that level of support or interest.

Summary

The length of Virginia's school day is consistent with the rest of the United States. Although most Virginia school divisions exceed the mandated five and one-half hours of instruction for grades 1 through 12, few exceed it by more than 30 minutes. Most Virginia school divisions exceed the mandated three hours for kindergarten, generally by more than two hours. Forty to fifty percent of local school divisions provide some type of "before and after school" program for instructicnal or other purposes in a voluntary basis for students.

Like the length of the school year, the length of the school day is an issue of community interest. Public opinion in Virginia currently does not the school day.

Efforts to lengthen the school day must account for the potential impact of learning fatigue on student effort. Increases in the time students are in school may not result in an increase in student learning without appropriate modification of the instruction. Further, a longer school day may adversely impact on student participation in after-school extra-curricular and work activities.

Chapter V

YEAR-ROUND SCHOOLING

Overview

Year-round schooling is a practice of reorganizing the school calendar over 12 months of the year rather than over the traditional 10 months. It is an alternative schedule for education, rather than an extended schedule. Most school divisions with year-round schooling schedule the school year into segments of time. The typical 180 days of schooling and 60 days of vacation is dispersed over the calendar year. Schools adopting a year-round schedule do so for either economic reasons such as to increase capacity of school facilities or enhance fuel conservation, or to improve academic achievement.

Year-round schedules are identified by the length of time spent in school and on vacation. Year-round schooling is offered with either a single track or multi-track approach. All students follow the same schedule in single track programs, attending school and vacationing simultaneously. Multi-track programs place students in one of several alternative schedules, using the school facilities year round. While part of the student body is in school, another part is on vacation. Appendix D details the variety of year-round schooling plans.

This chapter presents the national experience with year-round schools, with further discussion of the programs offered in Virginia. Public opinion about the use of year-round schools is also discussed.

National Experience

The directory of the National Association for Year-Round Education (NAYRE) lists 872 schools across the United States that practiced some form of year-round education in 1990-91. The majority offer no increase in instructional days, dispersing the 180 days of instruction throughout the calendar year.

There are many advocates for and against year-round schooling. Figure 19 prevents common agruments. Year-round schooling has the primary advantage of providing school divisions with a cost-effective method of serving relatively large numbers of students without building new facilities. However, for programs to be cost-effective, the mandated calendar must use the school facilities to a maximum. As a result, facilities may be unavailable for summer school or other community use.

Many advocates of year-round schooling argue that the scheduling practice reduces the impact of learning regression over the long summer vacation. They believe that the short

vacation periods used in these year-round schooling schedules reduces the amount of regression and shortens the time required for students to recoup the lost information. However, the limited research addressing the cumulative impact of such scheduling on academic achievement makes it difficult to draw conclusions on regression and recoupment. Existing studies addressing student achievement reveal no consistent benefit or drawback on student learning. Although some studies show gains in student performance, others show no significant change, or reveal a drop in student achievement scores. A review of pertinent research indicates that students educated according to a year-round schedule exhibit achievement scores no better or no worse than students educated according to a traditional calendar.

FIGURE 19
YEAR-ROUND SCHOOLING:
POINT - COUNTERPOINT

o serves relatively large number of students without building new facilities	• to be cost effective the school facilities must be used to a maximum;
o meets utility expenses in cost effective manner	• cost of installing and maintaining air conditioning may mitigate cost savings
o reduces regression	• academic effects are mixed: no consistent impact on student achievement
o teacher and student absenteeism is reduced, as more frequent vacations allow for rest and recuperation	• all schools do not report reduction in absenteeism
o institutions of higher education in some localities alter the schedule of providing courses for teachers	• limits opportunities for teachers to complete college courses
o reduces vandalism due to facility usage	

Source: DOE analysis of research.

Implementation of a year-round cycle has a significant impact on families and communities, and thus community support is important to the success of year-round schooling. When population growth dictates year-round scheduling as a viable alternative to significant tax increases for building new facilities, community support appears to be highest. However, it is not uncommon to see such plans discarded when the population growth dissipates after the typical seven to nine year cycle.

Many parents of children in school view year-round schooling as an interference with their family vacations. The travel and tourism industry share this perspective. The industry opposes year-round schooling and frequently counters NAYRE's efforts to expand usage.

A 1990 evaluation of California's use of year-round schools conducted by the California Legislative Analyst's Office indicates that year-round schools may be an effective practice for certain communities. The study assessed the value of maintaining incentive funds to encourage school districts to operate on a year-round schedule as an alternative to constructing new school facilities. The report concludes that the state's primary interest is the potential for reducing demands on limited state resources for construction of new school facilities. However, the absence of a clear advantage of year-round schools over the traditional calendar limits California's support for continuing financial incentives.

Virginia Experience

The Code of Virginia (§22.1-98) recognizes year-round education. Any school or school division may operate on a year-round basis without reduction in funding to the school. The Standards for Accrediting Public Schools in Virginia authorize the provision of course credit earned during summer months.

Some Virginia school divisions have practiced year-round schooling. Two urban school divisions used year-round schedules in the 1970s but discontinued use when population growth problems subsided. Prince William County and Virginia Beach Public Schools turned to year-round schooling to alleviate overcrowding. When overcrowding was no longer a problem, the practice was abandoned. Educators in Prince William and Virginia Beach reported no increase in student achievement during the year-round cycle. Other divisions, including Chesterfield County, have considered year-round schools as an option for population growth. Parents in these Virginia school divisions, frequently express dissatisfaction with the year-round schedule. Parents cite these problems: difficulty in scheduling family vacations, child care, impact on summer camps and the perceived need for a summer break. The response from the community was such that many divisions suspended their efforts to use the year-round scheduling option.

In contrast, Buena Vista Public Schools has operated a voluntary year-round program at the secondary level since 1973 with significant community support. The school board developed the program for academic purposes to provide enrichment, remediation, acceleration or promotion for students. A single track is used, with a voluntary fourth summer quarter. The voluntary summer quarter is much the same as the summer school programs offered in other local school divisions. This fourth

quarter is provided at no charge to students, distinguishing Buena Vista from those local school divisions who provide voluntary summer school at a cost to students. Many students from neighboring school divisions attend the fourth quarter in the summer to earn academic credit. The Superintendent reports wide acceptance by both students and the community, with a high enrollment in the summer quarter.

Public Opinion

Public attitudes in Virginia do not support year-round schools, according in the results of the Commonwealth Poll. The survey question asked: "Currently, most schools in Virginia operate within a 9-month period. Some people have suggested that the current 180 days of school be spread over the entire calendar year. The number of vacation days would not change. Would you favor or oppose spreading the current 180 days of school over the whole year?"

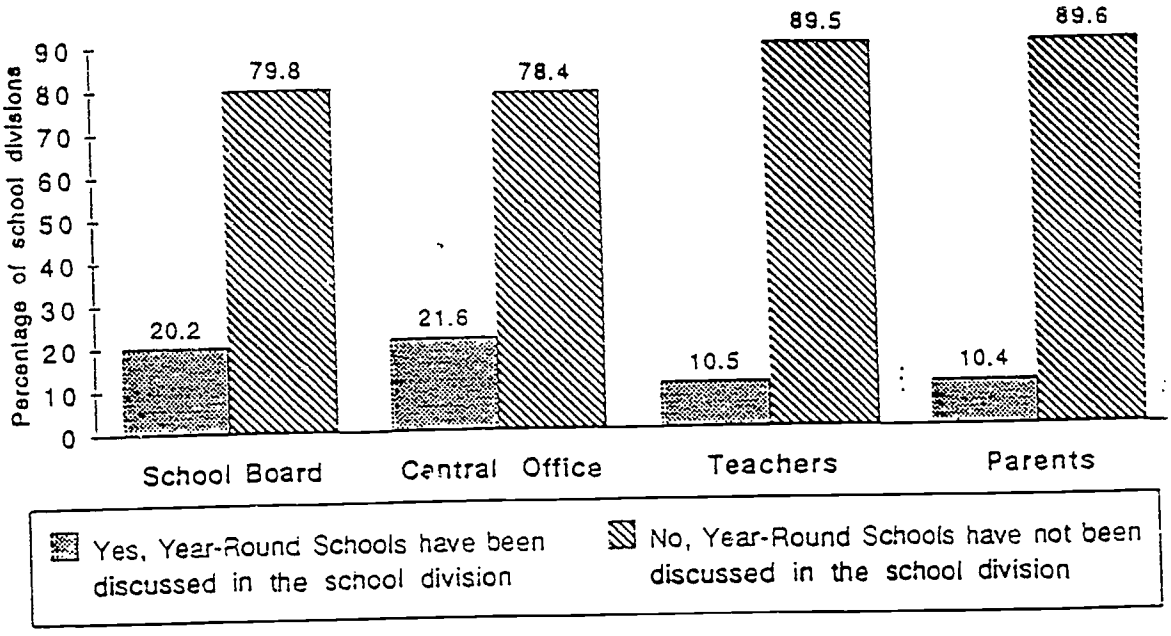
More than two-thirds of those surveyed oppose spreading the current school year over a 12-month period. Those respondents with children in the public school system oppose a 12-month school year (72 percent) to a greater degree than either the general public (67 percent) or those with no children now in school (64 percent).

The survey's demographic tabulations show that age, race, education, and place of residence of the respondents influence response rates. Respondents aged 65 and older and those without a high school diploma are least likely to have an opinion and replied "don't know" (32 percent and 18 percent respectively). Individuals with family incomes under $20,000 oppose a 12-month school calendar or respond "don't know" more than individuals from all other income brackets. African Americans (32 percent) favor a 12-month calendar more than Caucasians (20 percent). Residents from the Washington, DC suburbs and the Tidewater regions are more likely to favor year-round schooling than individuals in other areas of the state.

The use of a 12-month school calendar has not been an issue of discussion in most of Virginia's school divisions. Twenty percent of administrators surveyed report their school board and central administrators have recently discussed the subject. Furthermore, administrators report less discussion among teachers and parents within their division. Figure 20 shows the percentages of interest groups in school divisions currently discussing year-round schooling.

FIGURE 20

DISCUSSSION OF YEAR-ROUND SCHOOLS IN DIVISIONS (BY GROUP)



Source: DOE analysis of school division survey, July 1991.

The majority of school boards, administrative offices, teacher and parent groups (over 95 percent) have no formal position about a year-round calendar. The survey findings reflect that most educational communities across the state have a distinct lack of interest in using scheduling at this time.

Summary

School divisions use year-round schooling as a method for altering the school calendar primarily when experiencing population growth and lacking adequate school facilities. Few year-round calendars provide a mandatory increase in the length of the school year. Most school divisions in Virginia and throughout the nation which have used a year-round calendar, discontinue use once problems associated with population growth are alleviated. Some schools offer a fourth quarter of instruction as an option, similar to summer school. Evaluation of student achievement in year-round schools finds students do no better or worse in comparison with students in schools with traditional calendars.

Chapter VI

SUMMER SCHOOL

Overview

For nearly 100 years, school divisions throughout the United States have offered summer school programs to allocate additional instructional time for certain students. School divisions in Virginia, as in the rest of the United States, currently offer summer school for remediation, enrichment, acceleration, and promotion.

Summer programs are typically available at a cost to parents, except those federally mandated programs (compulsory education and special education) which must be provided at no charge. Since the 1988-89 school year, the Commonwealth provides funding for remedial summer programs for students performing at the bottom quartile on standardized tests.

This chapter presents the current Virginia practice regarding summer school programs. Particular focus is placed on summer reading programs in response to House Joint Resolution 423 of the 1991 Virginia General Assembly. The relationship between summer school programs and regression of student learning is discussed.

Summer Regression

Many educators and parents believe there is significant regression in student achievement over the summer months. The common perception is that following the long summer break, there is a need for four to six weeks of review. Most textbook manufacturers build in a review of the concepts as a component of textbook development. This perception is consistent with the findings of the limited research in this area. Teachers often report that it takes at least one grading period for certain students to attain levels of achievement comparable to those of school exit the previous June. This effect is most specifically noted for students who do not participate in any school or family sponsored summer activity.

Although some regression in student learning during school breaks has been documented, the issue is linked more to lack of practice or opportunity for practice than to forgetting. Research indicates that most forgetting occurs immediately after learning (within one hour to one day). Increased opportunities to practice a skill facilitate relearning. Thus, summer school programs that enable continuous practice of skills have the potential for reducing the time spent in review or relearning of material in the fall. However, the need for review is not totally eliminated.

Virginia Practice

In July 1987, the Virginia Board of Education adopted changes to the Standards of Quality and the Standards for Accrediting Public Schools in Virginia that enhance the state's commitment to remedial programs for certain students. The standards identify summer school as an important opportunity to increase the needed time available to certain students.

The 1990 Standards of Quality mandate that students whose scores are in the bottom quartile on the tests which comprise the Virginia State Assessment Program and those who fail the state's literacy tests "shall be required to take special remedial programs which may include attendance in public summer school sessions." The standards authorize division superintendents to require attendance of such students in summer school sessions, without charging those students tuition. The Commonwealth established funding for summer remediation programs based upon the number of students attending (Code of Virginia §22.1-253.13:1).

The 1988 Standards for Accrediting Public Schools in Virginia further detail the provision of remedial programs (Standard C, Instructional Program). These programs target reduction of the number of students scoring in the bottom quartile on the state assessment program. In addition, the standards provide that students who are not reading at or above grade level after grade 3 or those who fail the state's literacy tests shall receive additional instruction in reading. This instruction may include summer school.

The Standards for Accrediting Public Schools in Virginia also address summer school programs designed for enrichment, acceleration and promotion purposes. The standards mandate that summer school programs shall be equal in quality to programs offered during the regular school term (Standard C, Criteria 4), and authorize credit for courses taken during summer months.

Local School Division Survey

According to a survey of Virginia school divisions, approximately 93 percent offered summer school programs for academic purposes at the elementary, middle, and secondary levels in 1991 (Figure 21). Among those divisions offering summer school, the most commonly offered programs are for reading remediation at the elementary (90 percent) and middle school (85 percent) levels. Acceleration (60 percent) and promotion (50 percent) at the secondary level are also common. The high incidence of remedial programs, specifically summer reading programs, suggests that local educators recognize the value of providing additional time for low performing students in reading instruction. Many school divisions use summer instruction to

meet the requirements for students not reading at grade level. The survey did not gather information on the qualitative or programmatic aspects of the summer school courses.

FIGURE 21
SUMMER SCHOOL PROGRAMS OFFERED IN VIRGINIA SCHOOL DIVISIONS
(for the 1990-91 school year)

Type of summer school program	School level		
	Elementary n=115	Middle n=107	Secondary n=115
Academic Enrichment	57.3%	47.6%	30.4%
Promotion	13.9%	41.1%	50.4%
Acceleration	N/A	19.6%	60.0%
Remediation-Reading	90.4%	85.0%	30.4%
Remediation-Other	69.5%	74.7%	45.2%
Special Education	32.1%	27.1%	22.6%
English as a Second Language	< 1%	< 1%	< 1%
Other	< 1%	< 1%	< 1%

Source: DOE analysis of school division survey, July 1991.

In 1990-91, school divisions estimated that 40,569 students, grades K through 12 (four percent of the total student population) would be eligible for summer remedial programs. Eligibility is based on student performance on state assessment measures, criterion-referenced tests or teacher-made instruments. According to local school division reports, 92 percent (37,265) of students eligible for summer remedial programs were enrolled.

Structured Interviews

School administrators from selected school divisions were interviewed to ascertain the qualitative and programmatic nature of the divisions' summer reading programs. These administrators indicate that summer reading programs were designed to meet the needs of students requiring additional reading instruction. Student selection criteria varied widely, ranging from performance in the bottom quartile of the Virginia State Assessment Program to performance on criterion-referenced teacher-made tests and teacher referral.

None of the school divisions whose staff were interviewed compelled students to attend summer school; however, all school divisions developed incentives for those students most in need of instruction to attend. Despite the creativity used to attract students, enrollment and attendance varied among divisions. Administrators reported that in 1991, typically 50 to 75 percent of eligible students are enrolled in programs, with a range of less than 25 percent to greater than 75 percent of eligible students. Local officials cited the provision of free transportation as vital to ensure student enrollment.

Summer school reading programs also varied in length. Some 1991 programs were as short as two weeks and others as long as six weeks; typically, programs lasted three to four hours per day. Local school divisions appeared to value a lower teacher:pupil ratio in summer reading programs. Summer school ratios are lower than typically available during the school year (1:10 to 1:15). Many programs offer one-to-one instruction for students.

Local divisions frequently viewed summer reading programs as an opportunity to provide student instruction and teacher experience in "whole language" reading approaches. Such instruction focused on meaningful application of reading skills, rather than drills and skill building found in other approaches. Figures 22 and 23 provide further information about the summer elementary reading programs.

Local school divisions used local, state and federal dollars to fund summer programs in 1991. School divisions reported a total of $15,586,819 in expenditures for summer school instruction; seventeen school divisions had no expenditures; and three expended less than $1,000. Most funding for summer school programs was local money. State funding was limited to supporting remedial reading programs, and accounted for 25 percent of the total summer school expenditures.

Some state and local educators indicated that current state funding was inadequate to provide appropriate summer school reading programs for all eligible students. Local authorities interviewed believed that state funding was critical to the provision of summer reading programs, and officials further asserted that any reduction in state funding would compromise the value of the summer reading programs. Most reported that, in the absence of state funding, programs would be drastically altered (e.g., fewer students, shorter programs, increased class sizes).

FIGURE 22
INTERVIEW FINDINGS:
INCENTIVES AND BARRIERS TO ATTENDANCE
Elementary Summer Reading Programs
Selected Virginia LEAS

INCENTIVES	BARRIERS
o no cost to parents	• competition from community summer programs that offered non-academic activities
o free transportation	• some families did not share the value of enrollment in summer programs
o car pool information provided or car pools arranged if transportation not provided	• students with low success in school did not want to risk the possibility of continued low success in summer school
o contact with parents before enrollment (e.g., letters, conferences, workshops, phone calls)	• lack of transportation or funding for transportation
o contact with parents during summer school (e.g., workshops for parents during classes)	• distance required for travel to attend programs offered at centralized locations rather than home school
o letter of invitation sent to every child	
o program offered in multiple locations, allowing parents to choose most convenient location	
o "camp" atmosphere (e.g., adventure camp, travel camp; themes carried through camp)	
o "summer school cash" bonus for attendance that could be used at a program function	
o business involvement through donations allowing special activities (e.g., pizza, prizes)	
o summer school attendance ensured promotion	

Source: DOE staff interview with local summer reading program administrators.

FIGURE 23
INTERVIEW FINDINGS:
INSTRUCTIONAL METHODS USED IN SUMMER PROGRAMS
Elementary Summer Reading Programs
Selected Virginia LEAs

- whole language
- oral presentation
- literature based reading programs
- meaningful application of reading
- written language activities
- project based approach
- cooperative learning
- computer usage
- enrichment - e.g., field trips, co-curricular activities
- individualized instruction
- tutorial experience
- basic remedial approaches
- high interest, low vocabulary books
- use of community resources (storyteller, musicians, museums, foster grandparents)
- general avoidance of worksheets, drills and skill building
- affiliation with universities offering summer practicums in reading
- diagnostic 1:1 instruction

Source: DOE staff interview with local reading program administrators.

Total funds for summer instruction may also include some federal funding (Chapter I and special education). However, reporting practices prevent breakout of federal expenditures for summer school from calendar year expenditures. Interviews reveal the presence of many Chapter I summer reading programs. However, application of federal requirements prevents integration of Chapter I programs with other summer school reading programs.

Several school officials report the need for more time to plan summer reading programs. The state informs local school divisions of the availability of state funds for these programs late in the spring, after final approval of the Commonwealth's budget. The more comprehensive summer reading programs are in local school divisions that initiate planning of summer school programs in advance of receiving notification of the availability of state funds.

Although summer reading programs have been available to students for many years in certain areas of the state, there is no documentation about the effectiveness of these programs. Data has not been kept regarding the impact of the summer program on

the later reading performance of participating students. Many localities report a high degree of student, teacher and parent satisfaction with the summer programs.

Local school officials express concern for the needs of students at risk for reading development. They cite summer school programs as a valuable option for providing the necessary increase in instructional time for these students. Most local officials favor the current state practice of providing fiscal incentives for enrollment of students and do not favor mandating student attendance, believing that students' and parents' perceptions of the mandates may adversely impact on student motivation and interest.

Summary

Most Virginia school divisions use summer school programs for remediation, enrichment, acceleration and promotion purposes. Program enrollment remains voluntary, and participation and attendance varies among school divisions. However, over half of eligible students enrolled statewide. Many school divisions offer summer reading programs at no cost and provide transportation to encourage enrollment of students at risk.

Summer school reading programs frequently provide the opportunity for teachers and students to experience new instructional methods. The combination of smaller classes and new approaches often serve to better meet the need for increased reading instruction for students at risk. Unfortunately, no conclusion can be drawn about either short- or long-term academic benefits of summer reading programs due to limited evaluation.

Local educators believe state funding for summer reading programs is essential to assure their availability. Local administrators indicate that program quantity and quality would be significantly compromised without state funding.

Chapter VII

MANAGEMENT OF INSTRUCTIONAL TIME

Overview

Educators frequently cite the management of instructional time as an important vehicle for increasing productive learning time for students. Many educators believe that the first step in increasing the amount of time given to instruction is increasing the portion of time allocated for learning and the time students engage in learning. The purpose of effective time management is to optimize the relationship between the learner, the task and the instruction. This is one aspect of instructional time that is under the control of local educators.

Education policy makers have long reviewed the issue of management of instructional time. For example, Virginia's 1961 Spong Commission reported that classroom teachers were unable to devote a full day to instructional activities due to the "excessive time" required for non-instructional duties. Commission members pointed to the encroachment of extra-curricular activities, record keeping activities, and money collection into instructional time. The Spong Commission recommended that local school officials strive to keep classroom interruptions and record keeping responsibilities to a minimum. It urged superintendents and school board members to maximize instructional time during the school day. These same recommendations have been made by education reformers and policy makers over the past 30 years.

Administrative and instructional practices at both the division and building level impact on the management of time allocated for instruction and the amount of productive student learning. A variety of external factors reduces the amount of time available for instruction. Research suggests that, in actuality, about 60 percent of the school day is available for instruction. In a typical six-hour school day, this translates into three and one-half hours of instruction per day.

This chapter presents administrative and instructional practices about the management of instructional time, from both a national and Virginia perspective. Laws compelling school attendance, attendance policies, scheduling of non-classroom based school activities and instructional practices are discussed.

Background

Although Virginia schools allocate 990 or more hours of instruction over the course of the school year, there is much interference in the time available for classroom instruction. Many administrative activities are necessary (e.g., teacher in-services and teacher record keeping requirements). Other activities enrich instruction and maintain student motivation for education (e.g., career days, assemblies, field trips). Local administrators have the responsibility for scheduling these activities to minimize interference with instruction. Scheduling and integration of resource programs (e.g., art, music, special education and gifted and talented services) further impact on time for classroom instruction. Administrators make choices daily about the time expended by students and teachers in school. Figure 24 details many of the factors educators at the central office and building level consider when addressing the time given to student instruction.

Weather emergencies (foul weather and excessive heat) also interfered with time scheduled for instruction. Virginia authorizes the use of delayed openings and early release days for weather related problems. Some divisions release students early because of snow. In other divisions, early release time is used during hot weather for some school buildings without air conditioning. As long as the local school divisions meet the minimum number of days of instruction, the state does not require divisions to make up lost hours of instruction. The result may be a reduction in the number of total hours allocated for instruction from the required 990. There is some disparity in the number of hours allocated for instruction among schools both within and among school divisions.

Teacher and student absences impact on the use of allocated instructional time. School divisions frequently rely on short term substitutes who may not meet the requirements for teacher certification in Virginia. The absence of the assigned classroom teacher for any period is likely to have an impact on the instructional practice and classroom management, which may influence student behavior and learning. Student absences reduce student opportunities for receiving instruction. At high levels, absenteeism increases the potential that students will have failing grades and eventually drop out of school.

Many school administrators manipulate the non-instructional time in the school day to increase the amount of time scheduled for instruction. Administrators shorten lunch periods and time assigned for changing classes or limit student talking during lunch periods and class breaks. The gains in reallocated time are minimal and may be at the expense of student nutrition or attitude toward school.

FIGURE 24
ADMINISTRATIVE FACTORS IMPACTING ON THE MANAGEMENT OF ALLOCATED TIME

Local School Division:

- o Establishment of local schedule
  - number and arrangement of in-service days
  - number and arrangement of teaching/planning days and periods
  - number and arrangement of holidays
  - number and arrangement of parent conferences
  - school use by community (e.g., local elections)
  - graduation activities (e.g., senior dismissals, convocations)
- o Attendance policies
  - teachers
  - students
- o Record keeping requirements

Local School Building:

- o Establishment of building schedule
  - number and arrangement of periods/days for field trips, assemblies, activities, athletics
  - number and arrangement of parent conferences
  - length of lunch period
  - length of between class transitions
  - arrangement of fire and tornado drills
  - length and scheduling of announcements
- o Use of substitutes
  - selection of substitutes
  - expectations for teaching/planning
- o Non-instructional responsibilities of teachers
  - record keeping requirements
  - fund raising activities and money collection

Source: DOE analysis of research.

Many educators believe that one approach to increasing the time allocated for instruction is to increase the amount of homework assigned students. This practice requires no additional funds or major program modifications.

School administrators control the allocation of time for certain subjects and topic areas through establishment of schedules. Although administrators develop schedules to maintain a balanced curriculum, tradition maintains a heavy influence on scheduling. Classes and content area demarcations frequently reflect discrete time periods rather than the time required for student mastery of specific topics. There is little evidence to suggest that 50 minutes is the appropriate length of time for instruction. However, some administrators and teachers use alternative methods of scheduling (e.g., allocating blocks of time to specific content areas), allowing increased time for greater concentration of instruction. There remains great diversity in scheduling practice. For example, in 1985 the Association for Supervision and Curriculum Development studied the time allocated to content areas in fourth grade classrooms and revealed that some schools schedule two to four times as much instruction in certain content areas as others.

A number of instructional variables further influence use of the time allocated for student learning. The expected sequence and timing of curricular offerings in textbooks often limit teachers' ability to match the time provided with student learning needs. The assignment of students to certain groups, within or between, for content area instruction may influence the teachers' ability to modify as needed. Further, the need to teach many students in one class frequently dictates equalization of the time provided, without modifications as required by individual students. Class size research demonstrates that reduction in class size by one-third can lead to an increase in student attention by as much as 75 percent. The low pupil:teacher ratio allows for reduced waiting time and expanded teacher contact. However, fiscal limitations generally have a greater influence over pupil:teacher ratios than do instructional demands.

The classroom teacher has substantial influence over the use of allocated time for productive student learning. The teacher establishes the classroom environment and influences student attentiveness. Research indicates that students are typically engaged only 50 to 75 percent of the time provided for instruction. Classroom organization and management activities (e.g., taking role, making announcements, clarifying behavioral and instructional expectations, passing papers and materials) account for approximately 15 percent of the school day. Management of the transition between and within subjects also influences the time available for learning.

Research suggests that low student time-on-task behavior is frequently a product of an inadequate match of the instructional task to student needs than a product of poor classroom discipline. There are significant differences in the rates and types of student off-task behaviors. Low achieving students demonstrate more off-task behaviors than high achieving students. Increases in student on-task behaviors are possible only when the design of the instructional task is aligned with student learning requirements. In addition, the timing and pacing of instruction and the nature and timing of feedback must be driven by student needs.

Studies addressing time-on-task behavior reveal that teachers have varying skills in classroom organization and management. Educators implement a variety of instructional techniques to maximize classroom instruction (e.g., direct instruction, mastery learning, learning strategies). Research demonstrates that staff development can assist teachers in learning effective modifications of their instructional practice. The result of successful staff development can be an increase in student time-on-task and student achievement.

The impact of these administrative and instructional factors reduces the amount of time actually used for instruction in the classroom. Karweit (1984) indicates that only 21 to 69 percent of the school day (or one to four hours) is typically used for instruction. Many researchers suggest that less than 50 percent of the school year is actually given to student learning.

Many educators are studying the use of allocated time within their own school or division, investigating options for increasing student learning time. Results indicate that educators can achieve increases in instruction via refocusing of administrative and instructional scheduling practices and staff development.

Educational Practice

National

State government's primary responsibility in time management is the establishment of the number of years, days and hours of schooling. Laws for compulsory school attendance establish the age parameters for participation in school instruction.

There is diversity in the ages for compulsory school attendance throughout the United States. All states mandate certain ages for compulsory school attendance. The most common mandate is for students to enter school by age seven, and allow exit at age 16 (Figure 25). Most states allow exceptions to compulsory school attendance. Thirty-eight states allow exceptions to the entrance age and 23 states allow exceptions to the exit age.

FIGURE 25
COMPULSORY ATTENDANCE MANDATES

Entrance Age		Exit Age	
5 states	age 5	35 states	age 16
20 states	age 6	6 states	age 17
23 states	age 7	10 states	age 18
3 states	age 8		

Source: DOE staff analysis of Council of Chief State School Officers' data, 1989-90.

Although most states do not mandate school attendance until age six or seven, 45 states report that most students enter school at age five. Despite the high enrollment of five-year-olds in, and the accepted value of, kindergarten programs, most states, like Virginia, refrain from mandating attendance in kindergarten.

One result of the education reform movement of the 1980s was the attention given to attendance policies. By example, the South Carolina Educational Improvement Act of 1984 addressed absenteeism. The Act established lawful and unlawful absences and intervention plans to encourage student attendance. In addition, many local school boards throughout the country reviewed and revised their own attendance policies during the 1980s to increase the number of days of instruction.

Virginia

Virginia first enacted legislation for compulsory school attendance in 1958, establishing seven as the mandatory age for entrance and 16 as the minimum age for exit. Since that time, legislation has extended the years of compulsory schooling. The age at which students could exit was raised to 17 in 1968 and 18 in 1989. The school entrance age was lowered to six in 1968 and five in 1976 (Code of Virginia, §22.1-254). The Code assigns parents and guardians the responsibility for sending children to school.

Despite the language mandating that children aged five attend school, a separate section of the Code exempts children under the age of six from compulsory attendance. Parents must inform the school board of their desire that the child not attend school until the following year (§22.1-256). Further, state law authorizes the local school board to withdraw a child from kindergarten until the following year, upon the recommendation of the principal, and with parental consent (§22.1-3).

The state formally recognizes the need to maintain an instructional environment conducive to productive student learning. The Standards of Quality for Public Schools in Virginia (1990) require that the standards of student conduct and attendance allow for an educational atmosphere free of disruption (§22.1-253-13:7). In addition, the Standards for Accrediting Public Schools in Virginia (1988) of limit the regular school day to teaching and learning activities. These Standards indicate that educators should structure classroom activities to minimize disruptive behavior (Standards D and E).

Local school boards establish attendance and enforcement policies. School division attendance rates vary significantly, both between divisions and between schooling levels (elementary versus middle and secondary levels). The Department of Education's Outcome Accountability Project provides information on student attendance and the relationship between school division attendance rates and student performance. The data shows that attendance rates decline as school levels increase. For example, at the elementary and middle schooling levels, only a few divisions have greater than 50 percent of their students absent more than ten days a year. However, at the secondary school level, about one in five divisions have greater than 50 percent of their students absent more than ten days a year. A review of the data suggests that attendance rates at the secondary level may be an area to target improvement.

A preliminary analysis of division level data on attendance and student performance (i.e., Virginia State Assessment Program) reveals no statistically significant relationship. The Virginia Department of Education will conduct a complete analysis of educational factors affecting school division performance in 1992, including an examination of the relationship between student outcomes and attendance.

Local School Division: The school division survey reveals general information on the management of instructional time in Virginia's classrooms. Specifically, the information from central office administrators provides the approximate number of field trips, field days, and school assemblies held during the 1990-91 school year at the elementary, middle, and secondary levels. Administrator responses provide estimates of the number of early release days used for school years 1988-89, 1989-90, and 1990-91, and the number of study or homeroom periods offered within a standard school day.

The administrators' estimates of common scheduling practices for a single school year present division-level information from which to gauge the frequency of scheduled interruptions in instructional time. The survey provides no information on classroom practice; therefore, it is not possible to draw conclusions or make recommendations for improving management of instructional time at the classroom level.

Most school divisions (75 percent) report an estimated one or two days for field trips at the elementary, middle, and secondary school levels. At the elementary school level, the majority of divisions (45 percent) offer two field trips per year. In comparison, at the middle and secondary levels, the majority of divisions (54 percent) offer one field trip per year. The number of field trips offered varies from zero to ten days a school year (Figure 26).

FIGURE 26
Distribution of Number of Field Trips Taken During the 1990-91 School Year
(based on division estimates for each schooling level)

Number of Field Trips	Elementary (n=125)	Middle (n=112)	Secondary (n=121)	All School Levels (n=358)
0	1.6%	3.6%	5.8%	3.6%
1	31.2%	54.5%	54.5%	46.3%
2	45.6%	20.5%	19.8%	29.0%
3 - 5	17.6%	16.1%	14.9%	16.1%
6 -10	4.0%	5.3%	5.0%	5.0%

Source: DOE analysis of school division survey, July 1991.

The majority of divisions report one field day (i.e., physical education activity day) during the 1990-91 school year at the elementary (83 percent) and middle (59 percent) school levels. Scheduling field days at the secondary level is less common since only one-fourth of the divisions conducted secondary field day activities. The number of field days by divisions ranged from zero to four (Figure 27).

FIGURE 27
Distribution of Number of Field Days Taken During the 1990-91 School Year
(based on division estimates for each schooling level)

Number of Field Days	Elementary (n=124)	Middle (n=109)	Secondary (n=112)	All School Levels (n=345)
0	5.6%	33.0%	73.2%	36.2%
1	83.9%	59.6%	20.5%	55.6%
2 - 4	10.5%	7.0%	6.3%	8.2%

Source: DOE analysis of school division survey, July 1991.

The survey data indicate that most school divisions offer one or two assemblies per school year at the elementary, middle, and secondary levels, with a considerable range statewide (Figure 28). For example, two percent of divisions report no assemblies, while approximately five percent report between 10 and 15 assemblies during the year. The survey does not provide information on the average length or purpose of the assemblies.

FIGURE 28
Distribution of Number of Assemblies Held During the 1990-91 School Year
(based on division estimates for each schooling level)

Number of Assemblies	Elementary (n=125)	Middle (n=111)	Secondary (n=122)	All School Levels (n=358)
0	2.4%	2.7%	2.4%	2.5%
1-5	78.4%	82.5%	77.5%	78.5%
6-10	18.4%	11.6%	17.1%	15.6%
11-15	< 1%	3.6%	3.2%	2.5%

Source: DOE analysis of school division survey, July 1991.

Because annual weather conditions substantially impact the number of early release days in a given school year, data is included for a three year period to better represent standard practice. The data show that most school divisions (32 to 46 percent) average an estimated three to five early release days per school year over a three-year period. Some divisions (21 to 31 percent) use six to eight early release days per year (Figure 28). Fewer than 10 percent of division respondents report an estimated 12 or more early release days per school year.

A majority of local school divisions offer either study or homeroom periods at the middle school level (71 percent) and the secondary level (77 percent). Divisions offer study periods more frequently at the secondary level (65 percent) than at the middle school level (27 percent). Study periods typically range from 40 to 50 minutes per day. Divisions offer homeroom periods more frequently at the middle school level than secondary school level. Approximately two-thirds of the divisions offer homeroom at the middle school level while slightly less than half of the divisions have homeroom for secondary school level. Homeroom periods commonly range from 10 to 20 minutes.

FIGURE 29
Distribution of Number of Early Release Days
Taken During the 1990-91, 1989-90, & 1988-89 School Years
(based on division estimates for all schooling levels)

Number of Early release days	1990/91 School Year	1989/90 School Year	1988/89 School Year
0-2	10.8%	7.7%	10.5%
3-5	32.4%	42.5%	46.5%
6-8	31.6%	25.7%	21.3%
9-11	14.5%	15.0%	13.3%
12-14	4.5%	5.8%	5.7%
15-17	3.1%	< 1%	< 1%
18-20	1.6%	1.0%	1.0%
21-23	0	< 1%	0
24-26	< 1%	< 1%	< 1%
27-28	< 1%	< 1%	< 1%

Source: DOE analysis of school division survey, July 1991.

Survey responses include comments on the importance of managing instructional time from some local school division personnel. Richard J. Perry, Assistant Superintendent in Essex County, indicates: "Discussions in our division relative to instructional time available concluded that efforts should be made to make the best possible use of current instructional time." Deanna W. Gordon, Assistant Superintendent in Roanoke County, echoes the importance of maximizing instructional time: "It should be remembered that particularly in elementary schools, teachers reschedule to allow as much time as possible for reading and mathematics, even on early dismissal days."

Summary

Virginia establishes a framework for instructional time through compulsory school attendance. Virginia's requirements exceed those of most states, mandating attendance for students ages five through 18, while exempting five-year old students from school attendance, with parental consent. Attendance policies can impact available instructional time. These policies are the prerogative of local school divisions in Virginia, with no consistent attendance policy in use statewide. State standards for public schools emphasize the value of productive student learning, as standards call for maximizing teaching and learning in a positive atmosphere.

Despite efforts to increase time-on-task and student learning, there remains a high degree of variability in instructional and administrative practice related to the management of allocated time. Survey results indicate there is a wide diversity among Virginia school divisions in scheduling other than classroom school activities. Comments from local educators suggest that many divisions have begun to evaluate their use of scheduled time and the relationship between time and student learning. However, there is no evidence of a statewide focus on management of allocated time.

Educators and others agree that management of allocated time is of the utmost importance in assuring productive student learning. School administrative and instructional practices influence the use of scheduled time for student instruction. Practices that foster student effort and match student learning needs with the instructional task enhance student productive learning.

Chapter VIII

SUMMARY AND CONCLUSIONS

Summary

This report addresses the relationship between instructional time and student learning. Productive student learning occurs when the time allocated for instruction and the quality of the instruction provided meet student needs. Effective instruction accommodates for variations in the time needed by individual students. Further, effective education accounts for the differences in the time students actually engage in learning.

Research supports the importance of allocating sufficient time for learning. However, little is known about the optimum time allocations for productive student learning. Studies that identify that the impact of simple increases in allocated instructional time lack sufficient scientific rigor to draw causal relationships about the cumulative, long-term effects of altering instructional time. The most persuasive research demonstrates the benefits of increased time for students at risk. These students are most likely to show real learning gains with increases in allocated time.

Certain students with disabilities benefit from an increase in allocated time to meet or maintain objectives of their individualized education program. By law, consideration must be given to an extended school year - special education program for all students eligible for special education. The Individualized Education Program team determines the need for such services based upon past and projected student performance.

Research suggests four methods for influencing time to increase student learning. Increasing the total time provided for student instruction is but one vehicle. Increasing that portion of allocated time available for learning, increasing the time students engage in learning and reducing the time needed for instruction are other means for influencing student learning time. The time allocated for instruction is the most amenable to change by education officials. This study reviews the different components of allocated time: the length of the school year, the length of the school day, the provision of summer school, the use of an alternative school calendar (year round schooling) and the management of instructional time.

The length of the school year in Virginia continues to reflect the traditional, agrarian-based calendar. Most divisions offer 180 days of instruction over nine and one-half months and do not mandate summer attendance. Although the influence of agriculture no longer dominates, communities favor this calendar and the opportunities provided by long summer vacations.

Despite the discrepancies in the length of the school year between the United States and some other countries, research suggests that the number of days of instruction do not account for the differences in international achievement. Rather, factors such as type of instructional practice and characteristics of student populations appear to account for more of the differences in international achievement. Research provides little documentation that lengthening the school year alone would positively impact on general student achievement.

Virginia's mandated five and one-half hour school day also reflects traditional practice. Most Virginia school divisions offer more time than required by the state. However, the amount of additional time seldom exceeds 30 minutes for grades one through 12. There is a general reluctance to substantially extend the school day. Current practice provides opportunities for student employment and participation in after school activities, both highly valued by parents, students and educators. In addition, increases in the length of instructional day can, at some point, produce learning fatigue and result in decreases in student effort.

Most Virginia divisions exceed the state mandate for kindergarten programs (three hours) by more than two hours. Compulsory school attendance law mandates school enrollment at age five, but the requirement exempts kindergarten students. As a result, there may be considerable variance in the access and participation of five-year-olds in Virginia to instruction.

Schools in the United States and Virginia reflect the social, economic and cultural values of the community. School divisions successfully altering the school calendar do so after gathering widespread community support. Without such local support, initiatives to increase the school year or day, or alter the calendar, appear to fail. State Boards of Education, however, continue to exercise their authority to set minimum standards for the school calendar and to maintain allocated time for instruction.

Many school divisions in the United States have used Year-Round Schooling (YRS) as a scheduling alternative. Since most divisions use YRS to meet population growth and facility demand issues, the practice does not typically increase instructional time. The use of this alternative calendar reveals no consistent impact on student learning. Results show that student learning is no better or no worse than that achieved with a traditional school calendar.

Summer school provides an opportunity for additional instruction. Although participation in summer school is not mandatory, many Virginia school divisions use incentives to encourage enrollment of certain students. Summer school programs offered for acceleration or credit gain must meet the same

standards as classes offered for credit during the academic year. Most Virginia school divisions offer summer programs for remediation purposes. Many also offer programs for enrichment. Schools in Virginia do not commonly evaluate the effectiveness of summer school in increasing student achievement.

Administrative and instructional practices can adversely impact on the time allocated for instruction. Educators agree that effective management of instructional time, as well as careful administrative practice, can enhance productive student learning.

Many educators believe that increasing the student's engaged time through management is the most effective method of manipulating time and increasing student learning. Educators must carefully consider the time students require to achieve mastery of the selected curriculum. The time allocated must match the time needed. Unfortunately, limited information is available addressing the amount of time necessary to master specific learning tasks. However, if curricular expectations are such that school officials believe that students will require more than the mandated 180 days or 990 hours of instruction, then officials should pursue increases in allocated time. It is critical, though, that the nature of instruction accommodates student learning needs and the design of the learning environment meets the goals of public education.

Conclusions

From the findings, the study team generated several conclusions regarding the relationship between student learning and instructional time and identified potential areas for further research.

Instructional Time and Student Learning

1. The Commonwealth should continue to support and emphasize initiatives that enhance the quality of instruction with a goal of increasing productive learning time. A variety of education options, including choice of curriculum, use of effective instructional techniques and assignment of low teacher:pupil ratios, should continue to be considered priorities where supported by research.

2. Summer school programs for students at risk should continue to be supported at the state and local levels. However, attendance in such programs should not be mandated. At present, most school divisions offer summer remedial programs and a high percentage of eligible students enroll. In addition, the punitive nature of a mandate requiring summer school for students who do not perform at a given level on achievement tests may have a negative effect on students who are already at risk. Mandating participation

in summer reading programs would require enforcement at the local level. Implementation of such enforcement policies would prove difficult, if not impossible, as well as place additional demands on already limited resources. Lastly, without sufficient funding, establishment of a mandate places undue fiscal burden on local school divisions.

Local school boards should continue to examine options for increasing instructional time to meet the learning needs for students at risk for reading development. The Department of Education should continue to provide technical assistance and information to school divisions engaged in investigating options and developing programs.

3. Funding to increase instructional time for students at risk should be continued and expanded where appropriate. Summer reading programs should continue to be supported with other programs designed to increase allocated instructional time for students at risk. Adequate time for program planning is necessary, using data on the students' learning to match programs to students' needs. Further, school divisions should conduct evaluations of the impact of these programs on student learning. The Department of Education should provide technical assistance in program evaluation to local school divisions.

4. The Department of Education and local school divisions should support the use of summer school programs as a staff development opportunity for teachers. Quality of instruction can be enhanced by providing teachers with the opportunity to use alternative and innovative instructional techniques. In addition, students who have not learned successfully with traditional methods frequently benefit from such a laboratory approach.

5. Virginia educators should target staff development for teachers and administrators on areas that will increase productive learning time. Traditional in-service education opportunities should be supplemented by alternative techniques, including the use of mentor teachers, laboratory experiences, and cooperative teaching.

6. Local school boards should continue to examine options for increasing instructional time and altering the school calendar in response to community needs. The Department of Education should provide technical assistance and information to school divisions investigating options.

7. More longitudinal research on the cumulative impact of changes in instructional time on student learning is necessary to determine the instructional benefit of increasing the days in the school year or increasing the hours in the school day.

The Commonwealth should encourage certain schools to extend the school year or day and participate in an evaluation of the relationship between instructional time and student learning. The Department should conduct longitudinal research, a minimum of three to five years in length, to assess the cumulative effects of changes in instructional time. Schools may increase instructional time by either adding instructional days per year or instructional hours per day. Local school divisions should select the model most appropriate to the needs of their education communities. Public opinion data and local school division surveys are useful for identifying target divisions. Pilot projects of the World Class Education initiative can serve as a source of data. In addition, as the Common Core of Learning is developed, educators can determine the amount of time required for student mastery of the competencies.

8. The Commonwealth may consider research in the following areas, which emerge from this study of instructional time and student learning.

   - Identify the impact of increasing instructional time on students at risk of regression during the summer;
   - Evaluate the impact of increasing instructional time on various populations of students (low socioeconomic status, limited English proficient, disabled);
   - Determine the nature and relationship of attendance policies, student attendance and student learning;
   - Evaluate the issues surrounding kindergarten attendance and the length of kindergarten programs (student learning, personnel, and facilities);
   - Identify the interaction between instructional time and the student, specifically evaluating student control over the time engaged in learning and the impact of rewards on student engagement; and,
   - Evaluate the impact of alterations to the lunch period on student learning and student nutrition.

   As educators consider the need to increase instructional time, they must evaluate the purpose of allocating time. If inadequate time for instruction is the source of deficits in student learning, then increases may result in enhanced learning. However, if other factors are the cause of student problems, then providing additional time will not prove effective.

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APPENDIX A

GENERAL ASSEMBLY OF VIRGINIA--1991 SESSION

HOUSE JOINT RESOLUTION NO. 423

Requesting the Department of Education to include within the Board of Education's Focus Group on Teaching and Learning a study of the feasibility of compulsory summer reading programs for students in grades one through three who score in the bottom quartile on standardized tests.

Agreed to by the House of Delegates, February 22, 1991
Agreed to by the Senate, February 21, 1991

WHEREAS, governmental studies have revealed that over 20 million adults are functionally illiterate in America and another 39 million are only marginally literate; and

WHEREAS, approximately 13 percent of all 17 year-olds in the U.S. can be considered functionally illiterate; and

WHEREAS, functional illiteracy among minority youth may be as high as 40 percent; and

WHEREAS, the costs of illiteracy are staggering in terms of real dollar costs and human suffering; and

WHEREAS, children who cannot read and write fall behind their classmates and drop out of school at alarming rates; and

WHEREAS, the Governor's Commission on Excellence in Education strongly recommended remedial education programs for children who lack basic literacy skills; and

WHEREAS, remedial programs designed to reward achievement and promote feelings of self-worth can be effectively delivered in summer school; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Department of Education be requested to include within the Board of Education's Focus Group on Teaching and Learning a study of the feasibility of requiring local school divisions to provide compulsory summer reading programs for students in grades one through three who score in the bottom quartile on standardized tests.

The Department of Education shall complete its work in time to submit its findings and recommendations to the Governor and the 1992 Session of the General Assembly as provided in the procedures for the Division of Legislative Automated Systems for the processing of legislative documents.

APPENDIX B

INSTRUCTIONAL TIME IN VIRGINIA'S SCHOOL DIVISIONS

For the 1990-91 School Year

DIVISION	LENGTH OF THE SCHOOL YEAR (in days)				LENGTH OF THE SCHOOL DAY (in hours)			
	Kindergarten	Elementary	Middle	Secondary	Kindergarten	Elementary	Middle	Secondary
Accomack	180	180	180	180	5.00	5.75	5.75	5.83
Albemarle	180	180	180	180	5.00	•	6.00	6.00
Alleghany/Highlands	180	180	180	180	5.83	5.83	5.91	5.91
Amelia	180	180	180	180	5.33	5.83	6.16	6.00
Amherst	180	180	180	180	5.75	6.25	6.25	6.25
Appomattox	180	180	180	180	5.50	5.50	5.50	5.50
Arlington	182	182	183	183	3.00	6.00	6.00	6.00
Augusta	180	180	180	180	5.83	5.83	5.83	6.00
Bath	180	180	180	180	5.75	5.75	5.75	5.75
Bedford	182	182	182	182	6.00	6.00	6.25	6.25
Bland	•	•	•	•	•	•	•	•
Botetourt	180	180	180	180	5.50	5.50	5.50	5.50
Brunswick	180	180	180	180	5.75	5.75	5.91	5.91
Buchanan	180	180	180	180	6.00	5.91	5.91	5.91
Buckingham	180	180	180	180	5.75	5.91	5.83	5.83
Campbell	180	180	180	180	5.50	5.50	5.50	5.50
Caroline	180	180	180	180	5.75	5.75	5.75	5.75
Carroll	180	180	180	180	6.00	6.00	6.00	6.00
Charles City	180	180	180	180	3.00	5.50	5.50	5.50
Charlotte	180	180	180	180	6.00	6.16	6.16	6.16
Chesterfield	183	183	183	183	5.83	5.83	5.83	5.83
Clarke	180	180	180	180	6.00	6.25	6.25	6.25
Craig	180	180	N/A	180	5.83	5.91	N/A	5.91
Culpeper	180	180	180	180	5.75	5.75	6.16	6.25
Cumberland	180	180	N/A	180	3.00	6.08	N/A	6.08
Dickenson	180	180	180	180	6.00	6.00	6.00	6.00
Dinwiddie	180	180	180	180	5.50	•	•	•
Essex	180	180	180	180	5.91	5.91	5.91	6.33
Fairfax	183	183	183	183	3.00	5.50	6.50	5.50
Fauquier	180	180	180	180	5.75	5.75	5.91	5.91
Floyd	180	180	180	180	6.00	6.00	6.00	6.16
Fluvanna	180	180	180	180	6.00	5.50	5.50	5.50
Franklin	182	182	182	182	5.50	5.66	5.58	5.58
Frederick	180	180	180	180	3.00	5.50	6.33	6.00
Giles	180	180	180	180	5.75	5.75	5.75	5.75
Gloucester	180	180	180	180	5 50	5.75	5.75	5.75
Goochland	180	180	180	180	6.00	6.50	6.50	6.50

INSTRUCTIONAL TIME IN VIRGINIA'S SCHOOL DIVISIONS

For the 1990-91 School Year

DIVISION	LENGTH OF THE SCHOOL YEAR (in days)				LENGTH OF THE SCHOOL DAY (in hours)			
	Kindergarten	Elementary	Middle	Secondary	Kindergarten	Elementary	Middle	Secondary
Grayson	180	180	180	180	6.16	6.16	6.16	6.16
Greene	180	180	N/A	180	3.33	5.83	N/A	5.91
Greensville	180	180	180	180	3.25	6.00	6.00	6.00
Halifax	180	180	180	180	5.50	5.50	5.50	5.50
Hanover	181	181	181	181	6.00	6.00	6.50	6.50
Henrico	182	182	182	182	3.25	5.75	6.50	6.50
Henry	180	180	180	180	•	5.75	6.00	6.25
Highland	180	180	180	180	5.50	5.50	5.50	5.50
Isle of Wight	180	180	N/A	180	5.25	5.75	N/A	5.50
King George	180	180	180	180	3.00	5.93	5.90	6.16
King and Queen	180	180	180	180	5.50	5.50	5.50	5.83
King William	180	180	180	180	5.50	6.00	6.00	5.66
Lancaster	180	180	180	180	5.50	5.50	5.50	6.25
Lee	180	180	180	180	6.25	6.25	6.25	6.25
Loudoun	183	183	183	183	3.00	5.91	6.16	6.16
Louisa	180	180	180	180	6.00	6.00	6.50	6.26
Lunenburg	180	180	180	180	3.50	5.66	5.83	5.83
Madison	180	180	180	180	6.00	6.08	6.08	6.08
Mathews	180	180	180	180	6.00	5.91	5.91	5.91
Mecklenburg	180	180	180	180	5.66	5.66	5.91	5.91
Middlesex	180	180	180	180	5.83	5.83	5.83	6.00
Montgomery	180	180	180	180	5.66	5.83	5.83	6.00
Nelson	180	180	180	180	5.16	5.66	5.66	5.66
New Kent	180	180	180	180	5.66	5.66	5.66	5.66
Northampton	180	180	180	180	•	5.50	5.50	5.50
Northumberland	180	180	180	180	6.83	5.83	6.08	6.08
Nottoway	180	180	180	180	6.00	6.00	6.00	6.00
Orange	180	180	180	180	5.75	5.75	5.75	5.75
Page	180	180	180	180	3.00	6.00	5.50	6.08
Patrick	180	180	N/A	180	6.50	5.50	N/A	5.50
Pittsylvania	183	183	183	183	5.75	5.75	5.75	5.75
Powhatan	180	180	180	180	5.75	5.75	5.75	6.50
Prince Edward	180	180	180	180	6.00	6.00	6.00	5.50
Prince George	180	180	180	180	5.50	5.50	5.50	5.50
Prince William	184	184	184	184	3.00	5.50	5.50	5.50
Pulaski	•	•	•	•	•	•	•	•
Rappahannock	180	180	N/A	180	5.83	5.91	N/A	•

INSTRUCTIONAL TIME IN VIRGINIA'S SCHOOL DIVISIONS

For the 1990-91 School Year

DIVISION	LENGTH OF THE SCHOOL YEAR (in days)				LENGTH OF THE SCHOOL DAY (in hours)			
	Kindergarten	Elementary	Middle	Secondary	Kindergarten	Elementary	Middle	Secondary
Richmond Co.	180	180	180	180	5.83	5.83	5.83	5.83
Roanoke Co.	180	180	180	180	5.08	5.58	6.00	6.00
Rockbridge	180	180	180	180	5.66	5.66	6.33	6.33
Rockingham	180	180	180	180	5.50	5.71	5.83	6.10
Russell	180	180	180	180	6.50	5.75	5.75	5.75
Scott	180	180	180	180	6.33	6.33	6.33	6.33
Shenandoah	180	180	180	180	5.66	5.66	5.61	6.00
Smyth	180	180	180	180	6.00	6.00	6.00	6.00
Southampton	•	•	•	•	•	•	•	•
Spotsylvania	180	180	180	180	5.75	5.91	6.33	6.28
Stafford	185	185	185	185	3.50	6.00	6.00	6.00
Surry	180	180	180	180	6.00	6.00	6.00	6.00
Sussex	180	180	N/A	180	5.50	5.50	N/A	5.50
Tazewell	180	180	180	180	6.00	6.00	6.25	6.50
Warren	180	180	180	180	6.00	6.00	6.00	6.18
Washington	180	180	N/A	180	5.75	5.75	N/A	5.83
Westmoreland	180	180	180	180	6.25	6.25	6.25	6.25
Wise	180	180	180	180	6.33	6.16	6.16	6.16
Wythe	180	180	180	180	5.66	5.66	5.66	5.75
York	180	180	180	180	3.00	5.50	5.50	5.50
Alexandria	180	180	180	180	3.00	5.50	5.50	5.50
Bristol	180	180	180	180	5.50	5.83	5.75	5.91
Buena Vista	180	180	180	180	5.83	5.83	5.91	5.95
Charlottesville	181	181	181	181	6.00	6.00	6.00	6.00
Chesapeake	180	180	180	180	3.00	5.50	6.00	6.00
Colonial Beach	180	180	180	180	3.00	5.50	6.00	6.00
Colonial Heights	180	180	180	180	5.75	5.75	6.10	6.10
Covington	180	180	180	180	3.00	5.66	5.66	5.66
Danville	182	182	182	182	6.00	6.08	6.08	6.25
Falls Church	181	181	181	181	6.41	6.00	6.33	6.33
Franklin	180	180	180	180	6.08	6.08	6.08	6.08
Fredericksburg	180	180	180	180	5.33	5.83	6.91	6.58
Galax	180	180	180	180	5.93	5.93	6.13	6.21
Hampton	182	182	182	182	3.00	6.00	6.00	6.00
Harrisonburg	180	180	180	180	4.25	5.83	5.58	5.58
Hopewell	•	•	•	•	•	•	•	•
Lexington	180	180	180	N/A	6.00	6.00	6.00	N/A

INSTRUCTIONAL TIME IN VIRGINIA'S SCHOOL DIVISIONS

For the 1990-91 School Year

DIVISION	LENGTH OF THE SCHOOL YEAR (in days)				LENGTH OF THE SCHOOL DAY (in hours)			
	Kindergarten	Elementary	Middle	Secondary	Kindergarten	Elementary	Middle	Secondary
Lynchburg	180	180	180	180	5.91	5.91	5.75	5.50
Manassas	183	183	183	183	3.00	5.66	6.16	5.78
Manassas Park	180	180	180	180	3.00	5.50	6.50	6.50
Newport News	182	182	182	182	5.50	5.50	5.50	5.50
Martinsville	183	183	183	183	5.66	5.50	6.50	5.50
Norfolk	180	180	180	180	3.00	5.50	5.50	5.50
Norton	180	180	N/A	180	5.50	5.50	N/A	5.50
Petersburg	180	180	180	180	6.66	6.66	6.66	6.66
Poquoson	180	180	180	180	3.00	5.70	5.83	5.91
Portsmouth	181	181	181	181	6.00	6.00	6.00	6.00
Radford	180	180	180	180	3.00	5.50	5.50	5.50
Richmond City	180	180	180	180	6.25	6.25	6.25	6.25
Roanoke City	180	180	180	180	3.00	5.75	5.75	5.75
Salem	180	180	180	180	5.83	5.66	6.50	6.50
South Boston	*	*	*	*	*	*	*	*
Staunton	182	182	182	182	5.75	5.66	5.75	5.91
Suffolk	180	180	180	180	*	5.75	5.75	5.75
Virginia Beach	180	180	180	180	3.00	5.75	5.50	5.50
Waynesboro	184	181	181	181	3.50	6.00	6.25	6.25
Williamsburg	180	180	180	180	5.30	6.00	6.00	6.00
Winchester	180	180	180	180	4.00	5.72	6.33	7.16
West Point	180	180	180	180	5.66	5.50	5.50	5.50

* Indicates unreported data.

N/A = Not Applicable

Source: Virginia Department of Education, School Division Survey, July 1991

APPENDIX C

INSTRUCTIONAL TIME ACROSS THE NATION

Length of School Day (in hours)

For the 1990-91 School Year

STATE	Pre-K	Half-Day K	Full-Day K	Grades 1-3	Grades 4-6	Grade 7-8	Grade 9	Grades 10-12
Alabama	•	•	6.0	6.0	6.0	6.0	6.0	6.0
Alaska	•	•	•	4.0	5.0	5.0	5.0	5.0
Arizona	1.2	2.0	4.0	4.0	5.0	6.0	3.0	3.0
Arkansas	•	3.0	5.5	5.5	5.5	5.5	5.5	5.5
California	•	3.0	•	4.7	5.0	5.0	6.0	6.0
Colorado	•	•	•	•	•	•	•	•
Connecticut	2.5	2.5	•	4.0	4.0	4.0	4.0	4.0
Delaware	•	2.5	•	6.0	6.0	6.0	6.0	6.0
District of Columbia	6.0	•	6.0	6.0	6.0	6.0	6.0	6.0
Florida	•	•	3.0	4.0	5.0	5.0	5.0	5.0
Georgia	•	•	4.5	4.5	6.0	6.0	6.0	6.0
Hawaii	•	•	6.0	6.0	6.0	6.0	6.0	6.0
Idaho	•	2.5	4.0	4.5	5.0	5.5	5.5	5.5
Illinois	•	2.0	4.0	4.0-5.0	5.0	5.0	5.0	5.0
Indiana	•	2.5	5.0	5.0	5.0	6.0	6.0	6.0
Iowa	•	•	•	5.5	5.5	5.5	5.5	5.5
Kansas	•	2.5	•	6.0	6.0	6.0	6.0	6.0
Kentucky	•	3.0	6.0	6.0	6.0	6.0	6.0	6.0
Louisiana	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Maine	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0
Maryland	2.5	2.5	•	6.0	6.0	6.0	6.5	6.5
Massachusetts	•	2.5	5.0	5.0	5.0	5.0	5.5	5.5
Michigan	•	•	•	•	•	•	5.0	5.0
Minnesota	•	2.5	5.0	5.0	5.5	6.0	6.0	6.0
Mississippi	•	•	5.5	5.5	5.5	•	•	•
Missouri	•	3.0	3.0-7.0	3.0-7.0	3.0-7.0	3.0-7.0	3.0-7.0	3.0-7.0
Montana	•	2.0	4.0	4.0	6.0	6.0	6.0	6.0
Nebraska	•	•	•	•	•	•	•	•
Nevada	•	2.0	•	4.0	5.0	5.5	5.5	5.5
New Hampshire	•	•	•	5.3	5.5	5.5	5.5	5.5

INSTRUCTIONAL TIME ACROSS THE NATION

Length of School Day (in hours)

For the 1990-91 School Year

STATE	Pre-K	Half-Day K	Full-Day K	Grades 1-3	Grades 4-6	Grade 7-8	Grade 9	Grades 10-12
New Jersey	•	2.5	2.5	4.0	4.0	4.0	4.0	6.0
New Mexico	•	2.5	•	5.5	5.5	6.0	6.0	4.0
New York	2.5	2.5	5.0	5.0	5.0	5.5	5.5	5.5
North Carolina	•	•	5.5	5.5	5.5	5.5	5.5	5.5
North Dakota	•	2.5	5.5	5.5	5.5	5.5	6.0	6.0
Ohio	•	2.5	5.0	5.0	5.0	5.5	5.5	5.5
Oklahoma	•	3.0	•	6.0	6.0	6.0	6.0	6.0
Oregon	•	•	•	•	•	•	•	•
Pennsylvania	•	2.5	5.0	5.0	5.0	5.5	5.5	5.5
Puerto Rico	•	3.0	3.0	7.5	7.5	7.5	7.5	7.5
Rhode Island	•	2.5	•	5.0	5.0	5.5	5.5	5.5
South Carolina	2.5	2.5	•	6.0	6.0	6.0	6.0	6.0
South Dakota	•	2.5	5.0	5.0	5.5	5.5	5.5	5.5
Tennessee	•	4.0	•	6.5	6.5	6.5	6.5	6.5
Texas	3.0	3.0	6.3	6.3	7.0	7.0	7.0	7.0
Utah	•	2.5	•	4.5-5.5	5.5	5.5	5.5	5.5
Vermont	•	2.0	•	4.0	•	5.5	•	5.5
Virgin Islands	•	•	6.0	6.0	6.0	6.5	6.5	6.5
Virginia	•	3.0	3.0	5.5	5.5	5.5	5.5	5.5
Washington	•	2.5	•	••	••	••	••	••
West Virginia	•	2.6	5.3	5.2	5.5	5.5	5.8	5.8
Wisconsin	•	2.5	5.0	6.0	6.0	6.5	6.5	6.5
Wyoming	•	2.5	5.0	5.0	5.0	6.0	6.0	6.0

• Indicates no state policy

•• Data reported in hours per year

Source: Council of Chief State School Officers', 1990 Policies and Practices Survey

APPENDIX D

APPENDIX D

YEAR-ROUND SCHOOLS CALENDAR PLANS

45-15 single track plan (or block plan)
Four 9-week terms, separated by four 3-week intersessions/vacation periods. The entire student body commonly begins the first 9-week term in July, followed by a 3-week vacation for all (staff included). This sequence repeats twice more, thus arriving at thirty-six weeks of school.

45-15 multi-track plan (or staggered plan)
Similar to the 45/15 single track plan, except that groups of students are placed in two to four groups which rotate their vacations. Teachers follow tracks of their students, or may jump tracks and teach 12 months.

For example, groups A, B, and C are in school while group D is on vacation. The rotation continues every three weeks. Students follow nine weeks in and three weeks out on vacation.

60-20 plan
Three 60-day terms with three 20-day vacations that follow each term. The plan may be either single-track or multiple track format.

60-15 plan
Three 12-week (60 instructional days) sessions are separated by 3-week (15-days) vacations for intersession periods. The plan may be implemented with 5 tracks.

90-30 plan
Two 90-day semesters separated by a 30-day vacation. Schools close during the traditional winter vacations. Spring vacation is incorporated into the 30-day vacation pattern. Students may be divided into four groups, with three groups attending school at one time.

Quarter plan
The year is divided into 4 twelve-week periods: fall, winter, spring, summer. Students may select or be assigned to any combination of three of the four quarters. The fourth quarter may be offered for additional instruction. The curriculum is organized so each quarter is a separate entity within the 12 weeks.

Quinmester plan
Five 9-week semesters or blocks of time. Students attend any four of the five semesters, either by assignment or voluntary selection.

Concept 6 plan
Six terms of approximately 43 days each. Students are divided into three groups. Student groups attend four of the six terms, but attend two of the four terms consecutively. For example, group A begins in July and attends 43 days; they are then joined by Group B for another 43 days. Group C enters for the third term, with Group A exiting for a 43 day vacation period.

Concept 16/Concept 12 plans
Each is a variation of the 45/15 plan:
Concept 16
Sixteen 3-week curriculum periods. Students select twelve of the sixteen 3-week modules and may attend an additional 3-week period as an option.
Concept 12
Twelve 4-week modules. Students select nine of the twelve 4-week modules.

Flexible All-Year plan
Schools operate 240 days per year with three attendance choices for an individualized curriculum:
A. 175 days are required of all students; however, students may attend all 240 days, providing an additional 65 days of instruction.
B. Students may attend only the 175 required days, but these days may be spread over the 240 operating days. Families may select the time off they desire.
C. If the traditional 9-month calendar is desired, each student may start by a set date in September, finishing the required 175 days in June.

APPENDIX E

APPENDIX E

METHODOLOGY OF THE LOCAL SCHOOL DIVISION SURVEY

A survey was developed and distributed to Virginia local school divisions in June 1991. The survey gathered information regarding current school calendar practice and instructional practice in Virginia school divisions. In addition, the survey ascertained opinion of local school boards, central office administrators, teachers and parents regarding changes to instructional time. A 96 percent response rate was obtained, with 128 of 133 school divisions responding.

Division name: _____ Division number:_____

Person completing survey/title:_____

Phone #:_____

Circle those grades which comprise the elementary, middle, and secondary school categories in your school division. If there are several different grade groupings, identify the groupings which are most predominant. (For example, if most of your elementary schools contain grades K through 5, then place a single circle around the K, 1, 2, 3, 4, and 5 symbols found below)

In responding to survey questions, use these three categories which you identified.

K 1 2 3 4 5 6 7 8 9 10 11 12

1. For your division, record the total number of instructional days in the school calendar that **exceed** the mandatory 180 days.

_____ Kindergarten _____ Elementary _____ Middle _____ Secondary

2. For your division, record the total amount of instructional time per day that exceeds the required 5 hours and 30 minutes. (do not include lunch time)

_____ Elementary _____ Middle _____ Secondary

3. For your division, record the total amount of instructional time per day that **exceeds** the required 3 hours for kindergarten. (do not include lunch time)

_____ Kindergarten

4. For the following school years, what is the total number of instructional days in which students were released early (i.e., the release of students before completion of the standard instructional hours per day)? **If exact counts are unavailable, please estimate.**

	1990/91	1989/90	1988/89
Kindergarten	_____	_____	_____
Elementary	_____	_____	_____
Middle	_____	_____	_____
Secondary	_____	_____	_____

5. For the 1990/91 school year, what were the <u>average</u> days <u>per class</u> used for the following purposes? **If exact counts are unavailable, please estimate.**

	Field trips	Field days	Assemblies
Elementary	_____	_____	_____
Middle	_____	_____	_____
Secondary	_____	_____	_____

6. For the following school years, have you used "banked time"* for any schools in your division?

	1990/91	1989/90	1988/89
Yes	☐	☐	☐
No	☐	☐	☐

* Refer to Superintendent's Memo # 31 issued March 27, 1991 if a full description of banked time is needed.

6a. **IF YES** on any of the above years, indicate why was it necessary to use "banked time" for any schools in your division. (Check all that apply)

	1990/91	1989/90	1988/89
snow days	☐	☐	☐
extreme heat	☐	☐	☐
teacher in-service	☐	☐	☐
parent conferences	☐	☐	☐
other	☐	☐	☐

(explain)_____

_____

_____

7. For the following grades in your division, record the number of class periods and length of class periods offered within a standard school day (e.g., a six-period day/50 minute periods).

	Number of periods (in a day)	Length of periods (in minutes)	Not Applicable (briefly explain)
Elementary	_____	_____	_____
Middle	_____	_____	_____
Secondary	_____	_____	_____

8. For the following grades in your division, do you offer study and/or homeroom periods?

	Yes	No
Middle	☐	☐
Secondary	☐	☐

Comment_____

_____

8a. **IF YES**, indicate the **average** number of days per week and minutes per period that the study/homeroom periods are offered.

	study period		homeroom period	
	days per wk	minutes per day	days per wk	minutes per day
Middle				
Secondary				

Comment_____

_____

_____

9. Are division-administered programs, which are held before or after the regular school day, offered for non-academic purposes (e.g., day care programs)?

	Yes	No
Elementary	☐	☐
Middle	☐	☐

IF YES, what non-academic programs are offered?
(explain)_____

10. Are division-administered programs, which are held before or after the regular school day, offered for academic purposes? (excluding clubs and athletics)

	Yes	No
Elementary	☐	☐
Middle	☐	☐
Secondary	☐	☐

10a. IF YES, indicate what types of division-administered before or after school programs are offered for academic purposes. (check all that apply)

	Elementary	Middle	Secondary
Academic enrichment (non-credit related)	☐	☐	☐
Remediation (one subject area)	☐	☐	☐
Acceleration (additional credit hours)	☐	☐	☐
English as a Second Language	☐	☐	☐
Other	☐	☐	☐

Comments_____

10b. For all division-administered before or after school programs identified in Question 10a, indicate if they were compulsory or voluntary programs.

	Elementary		Middle		Secondary	
	compulsory	voluntary	compulsory	voluntary	compulsory	voluntary
Academic enrichment						
Remediation (one subject area)						
Acceleration (additional credit hours)						
English as a Second Language						
Other						

11. Does your division offer summer school programs? (either division-administered or administered by others)

	Yes	No
Elementary	☐	☐
Middle	☐	☐
Secondary	☐	☐

11a. IF YES, what types of division-administered summer school programs are offered for academic purposes? (check all that apply)

	Elementary	Middle	Secondary
Academic enrichment (non-credit related)	☐	☐	☐
Promotion (entire grade)	☐	☐	☐
Acceleration (additional credit hours)		☐	☐
Remediation (one subject area)			
Reading	☐	☐	☐
Other	☐	☐	☐
Special Education	☐	☐	☐
English as a Second Language	☐	☐	☐
Other	☐	☐	☐

Comments_____

11b. For all school-administered summer school programs identified in Question 11a, check whether or not the 1990/91 programs required direct costs to students. (check either transportation and/or tuition costs)

	Elementary			Middle			Secondary		
	COST		NO COST	COST		NO COST	COST		NO COST
	transp	tuition		transp	tuition		transp	tuition	
Academic enrichment									
Promotion									
Acceleration									
Reading remediation									
Other remediation									
Special education									
ESL									
Other									

Comments_____

12. In your school division, has there been any discussion (by the following groups), regarding an Extended School Year (i.e., increasing the number of instructional days to exceed 180 days)?

	Yes	No
School Board	☐	☐
Central office/administration	☐	☐
Teachers	☐	☐
Parents	☐	☐

12a. In your school division, do any of the following groups have a formal position regarding an Extended School Year (i.e., increasing the number of instructional days to exceed 180 days)?

	YES		NO POSITION
	Favor	Oppose	
School Board			
Central office/ Administration			
Teachers			
Parents			

13. In your school division, has there been any discussion (by the following groups), regarding Year-Round Schools (i.e., reorganizing the standard 180-day instructional year to operate within a 12-month calendar)?

	Yes	No
School Board	☐	☐
Central Office/administration	☐	☐
Teachers	☐	☐
Parents	☐	☐

13a. In your school division, do any of the following groups have a formal position regarding Year-Round Schools (i.e., reorganizing the standard 180-day instructional year to operate within a 12-month calendar)?

	YES		NO POSITION
	Favor	Oppose	
School Board			
Central office/ Administration			
Teachers			
Parents			

14. In your school division, has there been any discussion (by the following groups), regarding the increase of instructional time in a school day?

	Yes	No
School Board	☐	☐
Central Office/administration	☐	☐
Teachers	☐	☐
Parents	☐	☐

14a. In your school division, do any of the following groups have a formal position regarding the increase of instructional time in a school day?

	YES		NO POSITION
	Favor	Oppose	
School Board			
Central office/ Administration			
Teachers			
Parents			

Additional comments:

Thank you for your assistance. Please return the completed survey by July 19, 1991 to:

Diane Crosby
Policy and Planning
Virginia Department of Education
P.O. Box 6Q
Richmond, Virginia 23216-2060

APPENDIX F

APPENDIX F

METHODOLOGY OF THE COMMONWEALTH POLL

The Commonwealth Poll is a telephone survey consisting of questions on numerous topics. The Survey Research Laboratory at Virginia Commonwealth University in Richmond completed interviews for the survey between July 16 and August 1, 1991. The survey used a random selection of Virginia residents aged 18 and over. Survey Sampling Incorporated of Westport, Connecticut prepared the sample. The regions of the state designated by the Commonwealth Poll are displayed on the attached map.

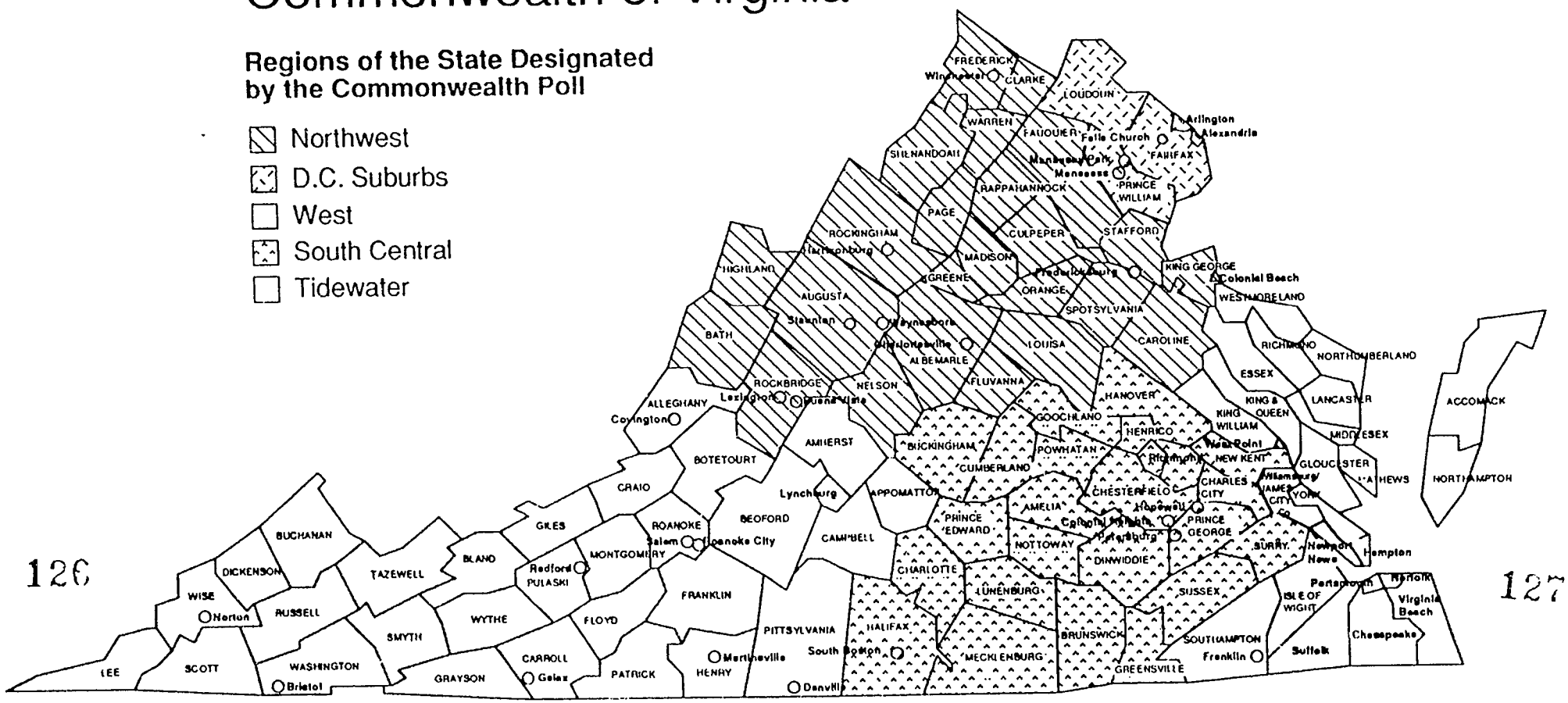
The response rate for the survey was 66 percent, resulting in a sample of 802 residents. Questions answered by 802 are subject to a sampling error of plus or minus approximately 3.5 percentage points at the 95 percent level of confidence. The sampling error is higher for the responses of the various geographic subgroups (e.g., age, region, income levels).

Telephone surveys typically underrepresent certain population groups, those which may be less likely to have a telephone or more likely to refuse an interview. As a result, survey results are weighted on education, sex, and race to accurately reflect the composition of the Virginia population based on projections from the 1980 U.S. Census data. For most of the items, the weighted data average no more than two percentage points different from the unweighted data.

Commonwealth of Virginia

Regions of the State Designated by the Commonwealth Poll

- Northwest
- D.C. Suburbs
- West
- South Central
- Tidewater



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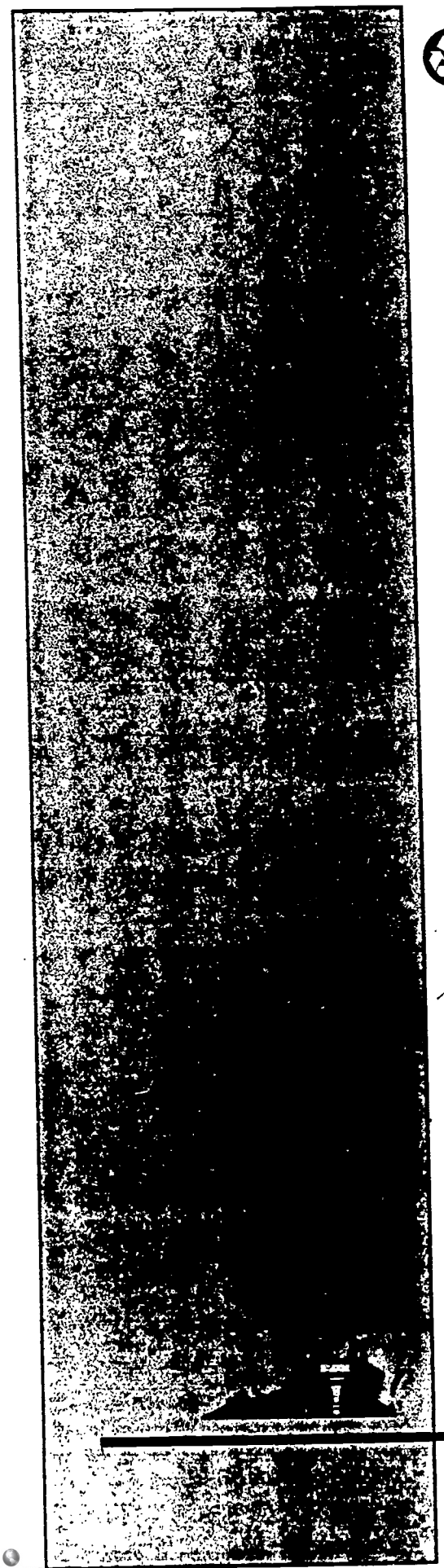

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