

What Happens During the School Day? Time Diaries from a National Sample of Elementary School Teachers

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The education literature contains many studies of what happens in schools and classrooms, but no documentation of what actually happens to children during an entire school day in a nationally-representative sample of students in the US. This study presents data collected from a nationally-representative sample of teachers of first through fifth graders (N = 553). Teachers completed a time diary, recording exact beginning and ending times for all the target student's school activities for a randomly selected day. We examined students' total time in school and their activities while there. We found wide variation in the length of the school day based on the student and classroom characteristics. Students attending school for the longest day were significantly more likely to be White and have fewer special needs, and to have smaller classes with a larger percentage of White students and a smaller percentage of students of other races than students attending for less time daily. We grouped students' activities at school into four categories that accounted for all but 9 minutes of the school day: academic, enrichment, recess, and maintenance activities. We found variations in how students spent their time based on student, family, and classroom characteristics. Teachers of African American students reported spending more time on academic subjects, and less time on enrichment and recess activities than teachers of white students. The same pattern emerged for teachers of more advantaged students, and classrooms with a larger percentage of White students. Results are discussed in terms of school reform efforts and inequality issues.

The question "what did you do in school today?" asked countless times in the car, at the dinner table, and over the phone by parents of school-age

children prompts a multitude of answers, ranging from “nothing” to a detailed description of what was served for lunch or a cool science experiment. Just as school-age children rarely provide parents with a minute-by-minute recounting of their day, researchers seldom gather such information about school from teachers or students. The education literature contains thousands of studies of what happens in schools and classrooms, with varying amounts of detail about classroom and teaching practices, yet we found no documentation of what actually happens to children during an *entire* school day in a nationally representative or large sample of students in the United States.

We know the basics. Children arrive at school in the morning and leave in the afternoon. While there, they study state-mandated core subjects, such as language arts, science, and mathematics and enrichment subjects, such as art, music, and physical education, as well as eat lunch. We lack the details, however, on how students spend their time at school, particularly the time not devoted to learning core academic subjects. This is surprising given the attention directed to time in recent school reform efforts. Concerns over the global competitiveness of American students, for example, have prompted calls for extending students’ time in school to bring the American school calendar more in line with those in other countries (e.g., National Education Commission on Time and Learning, 1994).

Critiques of the quality of American schools similarly hold that the added demands that today’s society place on schools takes away from time for learning core academic subjects. Some, such as the recommendations from *A Nation at Risk* (National Commission on Excellence in Education, 1983) call for more time and emphasis on core academic subjects. Others, such as the *No Child Left Behind Act of 2001* call for higher state standards in mathematics and reading (U.S. Department of Education, 2001). As the National Education Commission on Time and Learning (1994) concluded, higher standards translate into more school time—more time for students (and teachers) to master the higher standards in traditional subjects such as English, mathematics, and science, more time for subjects traditionally squeezed out of the curriculum, such as the arts, geography and foreign languages, and more time for assessment of progress towards these goals.

Despite the emphasis on time in educational reform efforts, few large-scale studies measure how American students actually spend their time in school. Both the National Education Commission on Time and Learning (1994) and a Department of Education study of the uses of time for teaching and learning (Adelman, Haslam, & Pringle, 1996) note the important need for such studies in their recommendations. One national dataset, the Schools and Staffing Survey (SASS) conducted by the National Center for Educational Statistics, does provide data on the time spent on four core academic subjects (English/language arts, mathematics, science

and social studies). The dataset includes time in core subjects in private and public elementary and secondary schools around the country in the 1987–88, 1990–91, and 1993–94 school years. In each wave, teachers reported the number of hours spent teaching each of the four core subjects in their most recent full week of teaching, rounding to the nearest whole hour.

Using these data, researchers found little variation in the percentage of school time devoted to teaching the four core academic subjects across different types of communities, schools, teachers, students, and classrooms (Perie, Baker, & Bobbitt, 1997). No changes occurred from 1987–88 to 1993–94, despite the implementation of new standards of excellence in the late 1980s. Elementary school students spent 68% of their school day, just over 4 hours, studying the four core academic subjects. Regrettably, data were not collected on what students did during the other third of their school day.

The SASS study maintains the historical interest among researchers, educators, parents and policy makers in instructional time. Berliner (1979) notes that virtually all treatises throughout the ages on teaching and learning make apparent the relation between instructional time and learning outcomes. Researchers study instructional time, sometimes referred to as “opportunity to learn,” in a variety of ways. One prominent line of research investigates differences in allocated time, engaged time, and academic learning time across classrooms, and their relation to student achievement (e.g., Berliner, 1979). Findings from the Beginning Teacher Evaluation Study, conducted by FarWest Laboratory for Educational Research and Development in the 1970s, showed wide variation in the amount of time (allocated time) teachers devoted to specific reading and mathematics content areas. When they investigated the amount of time students appeared to be paying attention to the lesson (engaged time) or the amount of time students were engaged successfully at the optimal level for learning (academic learning time), the researchers found considerable differences for students in different classes (Berliner, 1979). These findings drew attention to the importance of classroom management and instructional practices for increasing academic learning time. This line of research, however, focused on academic subjects only, grouping “wasted” transitional time with other activities such as music, art, or recess.

The present study adds important information to the question of how students spend their time in school. It provides the first large-scale data on time allocation in American elementary schools based on actual time use diaries rather than stylized estimates made by teachers. Although simple to implement and widely used, asking teachers to estimate the time spent on various activities for some past time period may be subject to social desirability bias. Methodological work done with parents shows that they

report more time spent with children on desirable activities, such as reading to a child, than on less desirable ones, when they are asked to provide estimates in stylized questions (Hofferth, 1999). Substantial methodological work has established the validity and reliability of data collected using a time diary format (Juster & Stafford, 1985). In addition, the present study extends the findings from previous research by providing time use throughout the entire school day, not just for core academic subjects. We use data from teacher time diaries completed as part of the Panel Study of Income Dynamics–Child Development Supplement (PSID-CDS) to delve deeper into the question of how students spend their time at school. Exactly how do children spend their time in school? What type of activities do they engage in? Does it vary depending on student, family, or classroom characteristics?

METHOD

DESIGN AND SAMPLE

The Panel Study of Income Dynamics (PSID) is a longitudinal study of a nationally representative sample of U.S. individuals and the families in which they live. The annual interviews focus on dynamic aspects of economic and demographic behavior, such as employment, income, housing, food expenditures, and marital and fertility behavior. In 1997, a Child Development Supplement (CDS) was added to better understand how family, school, and neighborhood experiences facilitate or detract from child and family well-being. All active PSID families with children under 13 years of age were contacted to participate in the supplement. In families with more than two children under age 13, two were randomly selected. Interviews were conducted between March 1997 and early December 1997, with a two-month break during July and August. Interviews were completed with 3,563 children in 2,380 households, an 88.4% response rate. As part of the CDS, interviewers requested permission and contact information for each participating child's teacher. A questionnaire, time diary, and copy of the parental consent form were mailed to the child's teacher.

In this paper we focus on students attending grades one through five in an elementary school setting. We excluded kindergartners because of the differences between kindergarten and the other grades in elementary schools (e.g., some children attend kindergarten for half a day and some for a full day). Similarly, we did not include students in the sixth grade because of the variation in settings for sixth graders; some attend elementary schools with one teacher in a self-contained classroom while

some attend middle schools with different teachers for each subject. The dataset contains completed interviews with 1316 first through fifth grade students. Fifty-one percent ($N = 675$) of these children's teachers returned their survey materials. Not all teachers completed the time diary, however. The questions addressed in this paper require information provided in both the questionnaire and time diary. Excluding those without both sources of information reduced the sample to 593 students.

A comparison of the family demographic characteristics of the target students whose teachers did and did not return the materials revealed some significant differences. Elementary school children whose teachers returned a completed time diary were more likely to be White (55%) compared to children whose teachers did not (38%), $\chi^2(3, 1315) = 45.26, p = .00$. Students of responding teachers were more likely to have a higher mean family income (\$51,370 vs. 43,300), $F(1, 1313) = 5.31, p = .02$, and better educated mothers (13.2 years of education versus 12.6), $F(1, 866) = 9.11, p = .00$. However, there were no differences in the target students' gender, age, or the age of the head of household. There were also no differences in the following school-related characteristics (based on primary caregiver report): grade; type of school (public or private); gifted, special education, or retention status; or the number of school suspensions, times changed schools, or days absent. The differences appear socioeconomic rather than student related. We therefore adjusted the PSID-CDS population weight for race to control for the existing differences. All of the following analyses were conducted using this adjusted population weight, making our sample nationally representative.

We limited the sample further in three ways. First, we did not include home schooled students ($N = 2$). Second, we excluded from analyses students in classes with 40% or more special education students because of the different structure of these classrooms ($N = 30$). Third, we eliminated an additional 10 cases due to conflicting reports of the students' grade level between the teacher and the primary caregiver. Only those students whose teachers reported they were attending first through fifth grade at the time the teacher completed the survey instruments were included in the sample. The resulting sample consists of 553 students.

Characteristics of the sample, with the adjusted population weight applied, are presented in Table 1. The sample is evenly divided among girls and boys. There are slightly more younger students (grades 1 and 2) than older students, although approximately 20% of the sample is in each grade. About 11% of the students attend private schools. The sample is diverse with respect to demographic variables. More than 35% of the students are non-White and more than 50% of the children live in households where the head has not attended school beyond the twelfth grade. Almost one quarter

of the sample lives with a single parent. Family incomes vary greatly, with a median of almost \$42,000.

MEASURES

For this paper we used data about the target child provided by the teacher in a self-administered questionnaire and time diary, by the child during an in-person interview, as well as basic demographic information collected from the primary caregiver during an in-person interview or from the head

Table 1. Characteristics of Weighted PSID-CDS Sub-Sample of First through Fifth Grade Students ($n = 553$)

	Number	Percent
Child's Gender		
Male	271	48.9
Female	282	51.1
Child's Race		
White	351	63.4
African American	89	16.0
Hispanic	72	13.1
Other races	42	7.5
Child's Grade		
First	117	21.1
Second	125	22.6
Third	108	19.5
Fourth	106	19.1
Fifth	98	17.6
Family Income		
Less than \$14,000	77	13.9
\$14,000 to 27,999	111	20.1
\$28,000 to 48,999	134	24.3
\$49,000 to 69,999	116	21.0
\$70,000 or more	114	20.6
Family Structure		
Two parents	421	76.1
Single parent	130	23.5
Other	2	0.3
Head's Education		
Less than HS graduate	107	19.3
High school graduate	190	34.4
Some college	114	20.7
College graduate or more	138	24.9
Type of School		
Public	487	88.4
Private	61	11.0

of household during the core PSID interview. More information about all of the CDS measures is available from the PSID-CDS website www.isr.umich.edu/src/child-development/home.html.

Child's Use of Time in School

Unique to this study is the use of a teacher-completed time diary to capture the events of one school day. Rather than asking teachers stylized questions about the structure of the school day, the time diary, created specifically for the CDS, gathers information on the flow of activities during a randomly selected designated day. Teachers began by reporting the time school began and the target child's first activity upon entering the classroom, listing the exact beginning and ending time. They then answered a series of questions about that activity. Using a template of responses, teachers indicated the child's location, who was with the child, where the teacher was if not with the child, how the class was structured, the instructional format and materials used, and the child's behavior during the activity. The appendix contains the exact questions and response choices. The teachers continued listing the activities, beginning and ending times, and responses to the questions for all activities on the designated day until the end of the school day.

CDS coders coded the activities listed by the teachers into one of six categories to more concisely capture the types of activities children engage in during the school day. The categories reflect the interests of educators and policy makers by distinguishing between core academic subjects and what many consider "extras" as well as structured and unstructured time. All content-based school subjects, such as language arts, math, science, and history/social studies, were coded as academic-structured activities. This included activities related to these subjects, such as homework review and testing (standardized and regular subject tests). Other activities that could be considered academic, but were not structured with a prescribed text book and/or lesson format, were coded as academic-unstructured activities. Examples include library time, quiet/silent reading, discovery areas, centers, field trips, study times, content-based assemblies (e.g., speeches, rain forest music), and games that reinforce academic skills such as math (speed ball) or spelling (ghost). We combined these two codes to create a category of *academic* activities.

All activities that were not part of the traditional academic curriculum, but structured such that students were taught and asked to demonstrate specific skills, such as physical education, art, music, religion (class or service), or health were coded as *enrichment* activities. Activities that were not part of the academic curriculum and were unstructured were coded as

break-time activities. In this paper, we refer to this category as *recess* because 91% of the activities with this code are recess or outdoor play time. Other activities reported within this category included free time, hanging out, and breaks. Activities that are a necessary part of the school day, but not times of learning, such as unpacking backpacks, homeroom, announcements, mealtime, bathroom breaks, lining up, cleaning up, travel/transition between activities, fire drills, or getting ready to go home were coded as *maintenance* activities. A final *other* category contained any activities that did not fit the other five categories.

The length of each activity was calculated in minutes from the exact beginning and end time entered by the teacher. To determine the total number of minutes spent in each type of activity, we summed the length of each activity coded in that category. For example, if a teacher reported four academic subject activities during one school day, the duration of all four activities was summed to calculate the total time in academic activities.

Student Characteristics

We included five student characteristics in this study: race, gender, grade, special needs score, and test score. The data necessary to construct these variables were drawn from the students' primary caregivers and teachers, as well as the students themselves. The students' race and gender were reported by the primary caregiver. Primary caregivers selected the target child's race from the following categories: White, non-Hispanic; African American, non-Hispanic; Hispanic; Asian or Pacific Islander; American Indian or Alaskan Native; and Other. For this study the last three categories were combined, and labeled as "other."

The target child's teacher identified the students' grade level and special needs status as part of the teacher questionnaire. We constructed a special needs score based on the teacher's response to the following five yes or no questions: (1) Does the target child have any physical, emotional or mental conditions which interferes with or limits his/her ability to do regular school work at grade level?; (2) Has the target child been classified according to state guidelines as needing special education?; (3) Is the target child a language minority student? (A student in whose home a non-English language is typically spoken.); (4) Is the target child a limited English proficient student? (A student who has limited English language skills.); and (5) Has the target child repeated any grades? We dichotomized the special needs score into those with no special needs (76%) and those with 1 or more (24%).

The test score reflects the target child's performance on standardized reading and mathematics assessments given as part of the CDS face-to-face

interview with the child. Students completed four subscales from the Woodcock-Johnson Revised Test of Achievement (WJ-R), Form B. The reading composite score averages the students' standardized scores on the letter-work identification and passage comprehension subscales. The mathematics composite score averages standardized scores from two mathematics subscales, calculation and applied problems. Students whose primary language was Spanish completed a Spanish version of the WJ-R (Bateria-R, Form A). We averaged the standardized composite reading and mathematics scores to create a single test score due to the high correlation between the two scores ($r = .69$). The resulting assessment score ranged from 40 to 148 (out of a possible 200), with a mean of 109.3 ($SD = 15.3$). For this study (given the small sample sizes), we split the students along the mean to create the two assessment score groups.

Family Characteristics

We drew two of the family characteristics used in the analyses from the demographic file created from the core PSID dataset. The PSID provides the poverty status (yes/no) of the students' family based on their total income and the poverty line in 1996. The educational level of the head of the household is the number of years of schooling reported by the head of the household. The primary caregiver interview asked about whom the target child lives with. We used this information to create a family structure variable, distinguishing between students living with two parents (biological, adoptive, or step) or one parent (mother or father).

Classroom Characteristics

The self-administered teacher questionnaire contains questions about the target child's performance and behavior, classroom, homework and structure of language arts and math instruction, and teacher characteristics. For this paper we used the description of the classroom characteristics that teachers completed as part of this questionnaire, including class size and the number of students of different ethnic backgrounds. These variables were used to calculate the percentage of White, African American and other race students in the target child's class. The additional classroom characteristic, public or private school, was drawn from the primary caregiver's report of the type of school the student attends.

We used these data to address two basic questions about how time is used during the school day. (1) How do students spend their time in school? and (2) does time use vary by student, family, or classroom characteristics?

RESULTS

THE TYPICAL SCHOOL DAY

On average, students began school at 8:19 ($SD = 25$ minutes) in the morning and finished at 2:54 ($SD = 28$ minutes) in the afternoon, making the typical school day 6 hours and 35 minutes. During this time, teachers reported a variety of activities—14 ($SD = 3.8$) separate activities on average. Illustrated in Table 2, the largest percentage of the school day was devoted to academic subject activities.¹ Maintenance activities made up the next largest piece of the school day, followed by enrichment activities, and recess. Only 9 minutes of the school day (2.2%) were unaccounted for by these activity categories. Teachers reported almost 8 different academic subject activities, totaling 4 hours and 11 minutes. On average, 3 separate maintenance activities consumed almost 1 hour of the school day. The 47 minutes devoted to enrichment activities typically occurred as 1 activity period. Similarly, students received only 1 recess, averaging less than 30 minutes per day.

Not all students participated in each type of activity on the diary day (see Table 2). All teachers reported at least some time on academic subjects, but approximately 21% of the teachers reported that their students did not have any time for recess during the diary day. And almost 15% of the students did not engage in any enrichment activities. When we averaged the time spent in the activity only for those students whose teachers reported some time in the activity, we found that these students engaged in 54 minutes of enrichment activities and 34 minutes of break time, both spread over more than 1 activity period.

VARIATIONS IN THE LENGTH OF THE SCHOOL DAY

The almost half-hour variation in the length of the school day was appreciable, particularly over the course of a school year. We looked more closely at this variation by dividing students into tertile groups based on the length of their school day. The first group ($N = 183$) attended school for the least amount of time per day, less than 6 hours and 20 minutes. We refer to this group as the 6 hour group since on average, students in this group were in school for 5 hours and 56 minutes (356 minutes, $SD = 36.7$) on the diary day. The school day for students in the second group ($N = 181$) lasted between 6 hours and 20 minutes and 6 hours and 43 minutes. Students in this group, the $6\frac{1}{2}$ hour group, spent 6 hours and 30 minutes (390 minutes, $SD = 6.7$) in school, on average. The third group of students ($N = 190$) attended school for more than 6 hours and 43 minutes. These students were in school for 7 hours and 2 minutes, on average

Table 2. Time Allocated to Different Activities during the Elementary School Day

Activities	% of Day		Minutes		No Time in Activity
	Mean	(SD)	Mean	(SD)	%
Academics	64.4	(11.0)	250.7	(47.4)	0
Maintenance	14.6	(6.4)	57.1	(25.7)	1.1
Enrichment	11.9	(8.1)	46.6	(32.2)	14.5
Recess	6.8	(5.2)	26.5	(20.1)	20.9

(422 minutes, $SD = 19.1$) and thus we refer to this group as the 7 hour group.

On the diary day, students in the 6 hour group, those with the shortest school day, attended school for 34 fewer minutes than students in the $6\frac{1}{2}$ hour group, and 66 minutes less than students in the 7 hour group, those with the longest school day. Over the course of the school year, these differences were quite substantial, even when differences in the number of instructional days (as reported by the administrator) were taken into consideration. Although students in the 6 hour group spent significantly more days in school (181 instructional days on average) than students in the 7 hour group (177 instructional days on average), they still spent almost 177 fewer hours in school per year than students in the 7 hour group. In other words, students in the 6 hour group experienced 14% less time in school than students in the 7 hour group. Students in the $6\frac{1}{2}$ hour group averaged 178 instructional days, leaving them 94 fewer hours per year in school than students in the 7 hour group, or 8% less time.

We next investigated if differences existed in the characteristics of the students or their families and classrooms for students in the three length-of-school-day groups. Table 3 shows the different characteristics of the students in the three groups. The η^2 (eta squared) in the far right column of Table 3 provides a measure of the size of the effect of each characteristic on the length-of-school-day groups. Comparable to the R^2 in regression analysis, the η^2 reports the percentage of variance in the length of school day explained by each characteristic individually. Cohen (1977) characterizes η^2 of .01 as small, η^2 of .06 as medium, and η^2 of .14 as large.

Students attending school for the longest day were significantly more likely to be White, $\chi^2(4, 553) = 24.36, p = .00, \eta^2 = .04$, and have fewer special needs than students with the shortest school day, $F(2, 552) = 5.13, p = .01, \eta^2 = .02$. There were no differences in the grade level or abilities (as measured by standardized assessments) of students in the different length-of-school day groups. We found no differences in the family characteristics of students attending school for different amounts of time. The size and racial make-up of the classrooms of students attending school for different

Table 3. Student, Family and Classroom Characteristics by Length of School Day

Characteristics	Length of School Day			η^2
	6 hours % or Mean (SD)	6½ hours % or Mean (SD)	7 hours % or Mean (SD)	
Student				
Race**				.04
White	51.9%	63.3%	74.2%	
African American	18.0%	15.6%	14.7%	
Other	30.1%	21.1%	11.1%	
Female**	48.1%	61.3%	44.2%	.00
Grade	2.9(1.4)	2.8 (1.4)	2.9 (1.4)	.00
# of special needs**	0.5 ^a (0.7)	0.3 (0.6)	0.3 ^a (0.7)	.02
Assessment score	108.1 (15.2)	108.9 (15.9)	110.9 (14.7)	.01
Family				
Two-parent family	66.7%	73.9%	75.3%	.01
At/below poverty line	16.6%	10.5%	13.8%	.00
Education of head	12.5 (3.2)	13.1 (2.7)	12.6 (3.3)	.01
Classroom				
Class Size**	23.8 ^a (5.4)	23.8 ^b (5.2)	22.0 ^{ab} (4.2)	.03
% White students**	50.7 ^{ab} (39.5)	64.6 ^a (36.4)	71.6 ^b (32.3)	.06
% African American students	15.2 (27.2)	12.9 (24.7)	14.9 (25.3)	.00
% other race students**	26.3 ^a (34.3)	20.2 ^b (30.2)	11.3 ^{ab} (22.2)	.04
% in public school	92.3%	87.1%	87.2%	.00

Note. Groups marked with the same letters are significantly different from one another.

** $p < .01$; * $p < .05$.

lengths did differ. Students attending school for the longest day were significantly more likely to have smaller classes, $F(2, 546) = 8.73$, $p = .00$, $\eta^2 = .03$, with a larger percentage of White students, $F(2, 551) = 16.05$, $p = .00$, $\eta^2 = .06$, and a smaller percentage of students of other races, $F(2, 2, 552) = 12.56$, $p = .00$, $\eta^2 = .04$, than students attending for less time daily. The differences between the three length-of-school-day groups in these classroom characteristics and the race of the student were also practically meaningful; the effect sizes were in the small to medium range.

VARIATIONS IN THE ACTIVITIES

Do students with shorter school days spend less time learning academic subjects, or do their teachers compensate for the shorter school day by spending less time on other activities? Table 4 presents the percentage of the school day and the mean number of minutes devoted to the four activity

Table 4. Time Allocated to Activities by Length of School Day

Activity	Length of School Day						η^2
	6 hours		6½ hours		7 hours		
	Mean	(SD)	Mean	(SD)	Mean	(SD)	
Percentage of School Day							
Academics**	65.3 ^a	(10.6)	65.9 ^b	(9.4)	62.1 ^{ab}	(12.3)	.02
Enrichment	11.9	(8.0)	11.1	(8.6)	12.7	(7.8)	.01
Recess	6.7	(5.7)	6.4	(4.8)	7.3	(5.1)	.01
Maintenance	14.7	(6.2)	14.3	(5.4)	14.8	(7.4)	.00
Minutes							
Academics**	232.6 ^{ab}	(46.0)	257.1 ^a	(36.5)	261.9 ^b	(52.7)	.07
Enrichment**	42.1 ^a	(28.5)	43.5 ^b	(33.4)	53.8 ^{ab}	(33.4)	.03
Recess**	23.5 ^a	(19.1)	25.0 ^b	(18.9)	30.9 ^{ab}	(21.4)	.03
Maintenance**	52.7 ^a	(22.6)	55.8 ^b	(20.9)	62.6 ^{ab}	(31.2)	.03

Note. Groups marked with the same letters are significantly different from one another.

** $p < .01$; * $p < .05$.

categories for students in each of the length-of-school-day groups. Regardless of the amount of time in school, all students spent the largest portion of their day learning academic subjects. Although students with the longest school day spent a significantly smaller percentage of their day on academic subjects, $F(2, 552) = 6.63$, $p = .00$, $\eta^2 = .02$, they still spent significantly more time learning academic subjects, $F(2, 553) = 21.79$, $p = .00$, $\eta^2 = .07$, than did students with the shortest school day. The 29 minute daily difference amounts to almost 2½ hours per week and more than 87 hours per year that students attending school for longer days have to learn academic subjects compared to students in school for the shortest day. With a longer school day, the teachers of students in this group also devoted more time to enrichment, $F(2, 552) = 7.56$, $\eta^2 = .03$, recess, $F(2, 552) = 7.32$, $p = .00$, $\eta^2 = .03$, and maintenance activities, $F(2, 552) = 7.35$, $p = .00$, $\eta^2 = .03$, compared with students in the other two groups. We found no differences in the percentage of students not engaging in an activity depending on the length of their school day.

Variations by Student Characteristics

Table 5 shows the percentage of the school day and the mean number of minutes devoted to each activity by student characteristics.² We found significant and meaningful differences for the amount of time children of

Table 5. Time Allocated to Activities by Child Characteristics

Child Characteristics	Academics		Enrichment		Recess		Maintenance	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Percentage of School Day								
Child's Race	$**\eta^2 = .04$		$**\eta^2 = .04$		$**\eta^2 = .09$		$**\eta^2 = .03$	
White	62.8 ^{ab}	(11.1)	13.0 ^a	(8.1)	8.0 ^{ab}	(5.2)	14.3 ^a	(6.6)
African American	67.9 ^a	(10.7)	8.8 ^a	(7.6)	4.5 ^a	(4.9)	17.1 ^{ab}	(6.5)
Other	66.7 ^b	(9.9)	11.1	(7.9)	5.0 ^b	(4.4)	13.7 ^b	(5.2)
Grade	$**\eta^2 = .02$		<i>ns</i> $\eta^2 = .00$		$*\eta^2 = .01$		$**\eta^2 = .07$	
1 and 2	62.8 ^a	(10.8)	11.4	(8.4)	7.1	(5.3)	16.5 ^{ab}	(6.9)
3	64.2	(9.9)	12.7	(7.8)	7.5	(5.0)	13.4 ^a	(5.0)
4 and 5	66.4 ^a	(11.5)	12.1	(7.9)	6.1	(5.2)	13.0 ^b	(5.7)
Special Needs	$*\eta^2 = .01$		<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .01$		<i>ns</i> $\eta^2 = .00$	
None	63.8	(11.3)	12.2	(8.4)	7.1	(5.2)	14.8	(6.7)
Some	66.5	(9.5)	11.2	(7.4)	6.1	(5.1)	14.2	(5.3)
Assessment Score	<i>ns</i> $\eta^2 = .01$		<i>ns</i> $\eta^2 = .01$		<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .01$	
Below the mean	65.1	(11.3)	11.6	(7.8)	6.8	(5.5)	14.1	(6.0)
Above the mean	63.0	(11.1)	12.9	(9.1)	7.1	(4.7)	15.5	(5.9)

Minutes in Activity

Child's Race	$**\eta^2 = .02$		$**\eta^2 = .04$		$**\eta^2 = .09$		$**\eta^2 = .03$	
White	245.8 ^a	(47.8)	50.9 ^a	(32.2)	31.2 ^{ab}	(19.9)	56.4 ^a	(26.7)
African American	262.6 ^a	(49.7)	34.0 ^a	(29.3)	17.7 ^a	(19.3)	66.0 ^{ab}	(25.8)
Other	256.5	(42.1)	43.1	(31.9)	18.9 ^b	(16.3)	52.4 ^b	(20.4)
Grade	$*\eta^2 = .01$		$ns \eta^2 = .00$		$**\eta^2 = .02$		$**\eta^2 = .07$	
1 and 2	244.6 ^a	(43.0)	44.8	(33.9)	28.0 ^a	(20.9)	64.7 ^{ab}	(28.6)
3	253.6	(46.8)	50.2	(30.9)	29.6 ^b	(19.5)	52.7 ^a	(19.4)
4 and 5	256.3 ^a	(51.9)	46.7	(30.9)	23.1 ^{ab}	(18.9)	50.3 ^b	(22.5)
Special Needs	$ns \eta^2 = .00$		$ns \eta^2 = .00$		$*\eta^2 = .01$		$ns \eta^2 = .00$	
None	249.1	(48.9)	47.6	(33.0)	27.6	(20.3)	58.0	(27.1)
Some	255.5	(42.2)	43.3	(29.5)	23.1	(19.1)	54.2	(20.6)
Assessment Score	$ns \eta^2 = .00$		$ns \eta^2 = .01$		$ns \eta^2 = .00$		$**\eta^2 = .02$	
Below the mean	251.5	(51.3)	44.5	(29.9)	26.3	(20.9)	54.3	(23.3)
Above the mean	245.1	(48.7)	50.8	(36.1)	27.7	(18.1)	60.6	(23.9)

Note. Groups marked with the same letters are significantly different from one another.

$**p < .01$; $*p < .05$.

different races and grade levels spent in the activities, even though the total time they spent in school was comparable. African American students spent a larger percentage of their day, $F(2, 552) = 11.12, p = .00, \eta^2 = .04$, and more actual time (17 minutes), $F(2, 552) = 5.61, p = .00, \eta^2 = .02$, on academic subjects than did White students. Teachers of African American students also reported a larger percentage of the day, $F(2, 552) = 8.41, p = .00, F(2, 552) = 10.59, p = .00, \eta^2 = .03$, and 10 minutes more time, $F(2, 552) = 7.59, p = .00, \eta^2 = .03$, devoted to maintenance activities. This left less time for enrichment activities and recess. White students spent a significantly larger percentage of their school day, $F(2, 552) = 10.59, p = .00, \eta^2 = .04$, and 17 minutes more, $F(2, 552) = 10.94, p = .00, \eta^2 = .04$, on enrichment activities than did African American students. Teachers of the White students also scheduled over 10 minutes more time for recess during the school day than teachers of non-White students, $F(2, 552) = 28.85, p = .00, \eta^2 = .03$. The effect sizes for these differences in classroom time use for classes with different racial compositions correspond to small to medium sized effects for academics, enrichment, and maintenance activities. The effect size of the students' race on the amount (minutes and percentage) of time allowed for recess was larger, in the medium to large range.

We expected students' activities during the school day to vary by grade. Preliminary analyses of time use by grade indicated similarity between first and second graders' use of time as well as between fourth and fifth graders' time use. Therefore, we created three grade groupings—first and second, third, and fourth and fifth—for all grade-based analyses. The time devoted to all but the enrichment activities differed for the youngest and oldest elementary school students (see Table 5). Although academic subjects accounted for the largest block of time for students in all grades, students in the first and second grade spent almost 11 fewer minutes per day studying academic subjects than did fourth and fifth grade students, $F(2, 552) = 5.96, p = .00, \eta^2 = .02$. The youngest students' extra time was allocated to maintenance and recess activities. Younger students spent a larger percentage of their school day involved in maintenance activities than older students, $F(2, 552) = 20.44, p = .00, \eta^2 = .07$, spending over 14 more minutes per day on maintenance activities, $F(2, 552) = 20.68, p = .00, \eta^2 = .07$. The oldest students spent a smaller percentage of their school day, $F(2, 552) = 3.67, p = .03, \eta^2 = .01$, and over 6 fewer minutes in recess compared to the younger students, $F(2, 552) = 4.93, p = .01, \eta^2 = .02$. The students' grade level explained seven percent of the variance in both the percent of time and minutes allocated for maintenance activities, placing the effect in the medium range.

Students with at least one special need spent a larger percentage of their school day learning academic subjects, $F(1, 552) = 6.45, p = .01, \eta^2 = .01$,

although not a significantly greater number of minutes. They did, however, receive almost five minutes less of recess time compared with students with no special needs, $F(1, 552) = 5.09, p = .02, \eta^2 = .01$. We found only one difference in the allocation of time based on the dichotomized assessment score. Teachers of students scoring below the mean on the assessment devoted less time, both as a percentage, $F(1, 420) = 5.55, p = .02, \eta^2 = .01$, and in actual minutes, $F(1, 420) = 7.40, p = .01, \eta^2 = .02$, to maintenance activities. The effect sizes, though, were small.

Teachers reported that a larger percentage of African American students (33.2%) received no enrichment activities compared to White (9.5%) and other minority students (15.2%), $F(2, 553) = 17.05, p = .00, \eta^2 = .06$. Similarly, 39.1% of African American students had no recess time during the diary day compared with 15.0% of White and 25.1% of other minority students, $F(2, 553) = 13.75, p = .00, \eta^2 = .05$. We also found a difference in the percentage of students who had time for recess based on assessment scores. Fewer students scoring above the mean (14.8%) experienced no recess than did students scoring below the mean (25.2%), $F(1, 420) = 7.12, p = .01, \eta^2 = .02$. There were no differences in the percentage with no time in the activities by the child's gender, grade, or special needs.

Variations by Family Characteristics

We next investigated differences in how students spent their time in school by the students' family characteristics. Table 6 shows that students' experiences in school did vary depending on who they lived with, their family's poverty level, and the highest educational level of the head of their household, although their total time in school did not. The time, both in actual minutes, $F(3, 548) = 4.76, p = .00, \eta^2 = .03$, and as a percentage of the school day, $F(3, 548) = 6.35, p = .00, \eta^2 = .03$, devoted to academic subject activities varied significantly by the educational level of the head of the household. Students living in households where the head had less than a high school education spent almost 23 minutes more, and a larger percentage of their school day, on academic subject activities compared with students living in a household headed by a college graduate. The time devoted to academics came at the expense of enrichment and break activities. Students with a more educated parent spent almost 12 minutes more per day in enrichment activities than students with a less educated parent, $F(3, 548) = 3.77, p = .01, \eta^2 = .02$. The level of education of the head of the students' household explained three percent of the variance in the amount of time (percentage and minutes) allocated to academics and two percent of the time allocated to enrichment activities.

Table 6. Time Allocated to Activities by Family Characteristics

Family Characteristics	Academics		Enrichment		Recess		Maintenance	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Percentage of School Day								
Family Structure	<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .01$		<i>ns</i> $\eta^2 = .00$	
Two parents	64.4	(10.8)	12.1	(8.2)	7.0	(5.1)	14.5	(6.5)
Single parent	65.2	(11.5)	11.4	(7.9)	6.2	(5.4)	15.1	(5.8)
Poverty status	<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .00$		** $\eta^2 = .04$		<i>ns</i> $\eta^2 = .00$	
At/below poverty line	64.8	(10.7)	11.1	(8.1)	4.3	(4.6)	15.4	(5.7)
Above poverty line	64.4	(11.1)	12.1	(8.2)	7.2	(5.2)	14.5	(6.5)
Education of Head	** $\eta^2 = .03$		* $\eta^2 = .02$		* $\eta^2 = .02$		<i>ns</i> $\eta^2 = .00$	
Less than high school	67.7 ^{ab}	(9.0)	11.0	(7.3)	5.7 ^a	(4.4)	14.6	(6.2)
High school graduate	63.9 ^a	(10.4)	11.8	(7.6)	7.1	(5.0)	14.5	(5.6)
Some college	65.2	(10.1)	11.1	(7.7)	6.5	(5.6)	14.8	(5.7)
College graduate or more	61.7 ^b	(13.0)	13.8	(9.5)	7.7 ^a	(5.6)	14.8	(7.8)
Minutes								
Family Structure	<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .01$		<i>ns</i> $\eta^2 = .00$	
Two parents	251.2	(46.9)	47.5	(32.8)	27.3	(19.6)	56.8	(26.3)
Single parent	249.0	(48.3)	43.9	(30.3)	24.3	(21.3)	58.5	(23.4)
Poverty status	<i>ns</i> $\eta^2 = .00$		<i>ns</i> $\eta^2 = .00$		** $\eta^2 = .04$		<i>ns</i> $\eta^2 = .00$	
At/below poverty line	255.6	(50.6)	43.6	(32.0)	16.8	(17.6)	60.4	(22.3)
Above poverty line	250.0	(46.9)	47.1	(32.3)	28.1	(20.0)	56.5	(26.1)
Education of Head	** $\eta^2 = .03$		* $\eta^2 = .02$		* $\eta^2 = .02$		<i>ns</i> $\eta^2 = .00$	
Less than high school	261.8 ^a	(44.9)	42.7 ^a	(28.9)	22.4	(17.3)	56.1	(24.1)
High school graduate	251.7	(45.0)	46.2	(29.6)	28.3	(20.0)	57.1	(22.1)
Some college	251.1	(41.5)	42.7	(28.9)	25.0	(21.7)	56.8	(22.2)
College graduate or more	239.2 ^a	(54.7)	54.3 ^a	(39.0)	29.3	(20.0)	58.4	(32.6)

Note. Groups marked with the same letters are significantly different from one another.

****** $p < .01$; ***** $p < .05$.

There were also differences in the amount of time for recess, with the teachers of more advantaged students allocating more time for recess. Students living above the poverty line received over 11 minutes more recess time than did students living at or below the poverty line, $F(1, 550) = 21.33$, $p = .00$, $\eta^2 = .04$. Students' poverty status explained 4% of the variation in the time (percentage and minutes) devoted to recess activities. Students whose parent completed college or had more education experienced almost 7 minutes more per day of recess time, $F(3, 548) = 3.15$, $p = .03$, $\eta^2 = .02$. Only for recess activities did the percentage of students whose teachers devoted no time to the activity differ by family characteristics. A greater percentage of students from disadvantaged families did not have any time for recess during the diary day. Eighty-two percent of the students living in two-parent families received some time for recess but only 72% of the students living in single-parent families did, $F(1, 550) = 5.10$, $p = .02$, $\eta^2 = .01$. Similarly, 56% of those living at or below the poverty line had time allocated for recess. Among those students from families living above the poverty line, 83% received at least one break during the school day, $F(1, 551) = 30.23$, $p = .00$, $\eta^2 = .05$.

Variations by Classroom Characteristics

Table 7 presents the correlation between the classroom characteristics and activities using correlation coefficients for the continuous variables of class size and the percentage of White, African American, and other race students. We found significant differences in how students in different types of classrooms spent their time in school. As the number of students in the class increased, so did the percentage of the school day and the amount of time devoted to academics, while the time (percentage and minutes) devoted to enrichment and recess activities decreased. We found the same pattern for the percentage of African American and other race students in the classroom. The reverse pattern emerged for the percentage of White students: As the percentage of White students increased, the allocation of time to academics decreased, while the allocation to enrichment and recess increased.

How time was allocated differed for students attending public and private schools, despite average days of comparable length. Students attending private school spent a smaller percentage of their day (54.7% vs. 65.6%), $F(1, 546) = 58.23$, $p = .00$, $\eta^2 = .10$ and fewer minutes (215.8 vs. 254.8 minutes), $F(1, 546) = 39.00$, $p = .00$, $\eta^2 = .07$, in academic activities than did students attending public schools. This difference left more time for the teachers of students attending private school to allocate to enrichment (74.8 vs. 43.2 minutes), $F(1, 546) = 57.40$, $p = .00$, $\eta^2 = .10$,

Table 7. Time Allocated to Activities by Classroom Characteristics (Correlation Coefficients)

Characteristics	Academics	Enrichment	Recess	Maintenance
Percentage of School Day				
Class Size	.18**	-.11*	-.16**	.02
% White Students	-.18**	.16**	.27**	-.04
% African American Students	.12**	-.16**	-.24**	.20**
% Other Race Students	.13**	-.08	-.17**	-.06
Minutes				
Class Size	.10*	-.13**	-.17**	.00
% White Students	-.09*	.17**	.29**	-.02
% African American Students	.10*	-.16**	-.24**	.19**
% Other Race Students	.09*	-.08	-.19**	-.07

Note. ** $p < .01$; * $p < .05$.

recess (34.0 vs. 25.7 minutes), $F(1, 546) = 9.47$, $p = .00$, $\eta^2 = .02$, and maintenance activities (64.2 vs. 56.2 minutes), $F(1, 546) = 5.46$, $p = .02$, $\eta^2 = .01$. These three activities also accounted for a larger percentage of the private school students' day than for students attending public schools. The type of school (public or private) explains a large percentage of the variance in students' spent time.

A larger class size was significantly correlated with more teachers reporting no time devoted to enrichment activities ($r = .13$, $p = .00$). The percentage of White students in the classroom was negatively related to the percentage of students with no recess ($r = -.21$, $p = .00$). Conversely, the percentage of African American in the classroom showed a positive relation to the percentage of students with no time for enrichment ($r = .19$, $p = .00$) and recess ($r = .24$, $p = .00$) activities.

DISCUSSION

We began this investigation with a look at a typical school day for this nationally-representative sample of elementary school (first through fifth grades) students. We found the length of the school day was similar (6 hours and 30 minutes) for our sample in 1997 as for students in the SASS in the 1993–1994 school year (6 hours and 24 minutes). Students in the SASS sample spent 68% of their day engaged in four core academic subjects. Similarly, students in the PSID-CDS devoted 65% of their day to academic subjects.

We then went on to look at what students did during their remaining time at school, information not available in any other national dataset. We found differences in students' participation in academics, as well as recess and enrichment activities based on the demographic characteristics of the students, their families, and their classrooms. In this section, we use these findings to provide insight into issues of educational inequality in American schools, including the amount of schooling and the tension between the role of academics and other activities, such as enrichment classes and recess activities.

Proposals for lengthening the school day or the school year to provide more time for learning stem largely from the untested but popular belief that more time would lead to higher achievement, presumably by allowing more time for the pursuit of academic topics (Ellis, 1984; Glass, 2002). Although academic pursuits account for the bulk of children's time in school, 35% of the school day is devoted to other activities. This may seem like a large portion of the day—2 hours and 10 minutes—particularly given the emphasis on strengthening American students' academic performance. Some argue that this time is “wasted.” The “extras,” such as health, music, and art, and routine necessities, such as lunch, bathroom breaks, or recess, take too much time away from the true business of schools—training in academic skills. Others believe that schools do not have enough time to teach our students all they need to know to be successful in the 21st century; enrichment and extra activities are an essential part of the school day, according to this point of view. How can schools cultivate well-rounded students when 15% of the students do not participate in any enrichment activities, and for those students who do, only 54 minutes a day are devoted to the “extras?” How can students concentrate when almost one-quarter do not have any break time, and those whose teachers do provide recess only have 34 minutes a day to “release some steam?”

We cannot solve this debate, which lies at the core of today's educational reform movement. However, these data add substance to the discussion by providing time estimates for how students spend their time in school. The additional time available to students in school for longer days is not devoted entirely to increased time in academics. Instead, it is divided up among different activities. Of the additional 66 minutes per day in school for students with the longest school day, 29 of the minutes (44%) were allocated to academics. The remaining time allowed an additional 12 minutes for enrichment activities (18% of the extra time), 7 minutes more for recess (11%), and 10 minutes extra for maintenance activities (15%). For this national sample of students, a lengthened school day provided greater opportunity for a well-rounded school day—extra time in academics, enrichment, and recess.

Our data illustrate the racial and economic inequality in America's schools: Poorer minority children do not have the same opportunities as richer White students. Although minority students had more time allocated to academic subjects, they had less exposure to recess and enrichment activities. One third of the African American students had no recess, more than twice as many African American students than White students. From our data, we do not know why so many children in these classes forgo recess. It could be that in classes and schools with more minority children, the recent focus on higher standards has forced out time for recess. Alternatively, the schoolyards may pose more dangers than benefits. Children, particularly elementary school age children, need breaks in their day. Stevenson and Lee (1990) found that students in Asian countries receive more opportunities for free play or recess during the school day than American children, allowing them to concentrate more fully on their lessons. The scant empirical research on the role of recess on children's development supports the importance of breaks for the opportunities to learn and practice social skills they provide more than for the opportunity to "burn off steam" (Evans & Pellegrini, 1997; Pellegrini & Smith, 1993).

Tougher standards, and the time on academics required to achieve them, might also explain the different amount of time devoted to enrichment activities for minority students. Three times as many African American students than White students did not engage in enrichment activities during the school day. The consequences, both developmentally and educationally, for a lack of exposure and engagement in the arts and physical education, may be substantial. The benefits of physical education include motor skill development, exposure to positive attitudes and examples of an active lifestyle, and some evidence of enhanced academic performance, self-concept, and mental health (Summerfield, 1998). Decreases in physical activity, both in and out of school, are linked to the 100% increase in childhood obesity rates since the 1980s (Centers for Disease Control and Prevention, 2000). Researchers have demonstrated a positive effect of art education on academic performance and interest (Hanna, 1992). Part of the rationale for the after-school activities movement rests on the importance of these types of activities for enhancing children's development (U.S. Department of Education, 1998; Centers for Disease Control and Prevention, 2000). We could not investigate the effect of these differences in time use during the school day on students' developmental outcomes (academic, social, emotional, physical) because the dataset contains only cross-sectional data. A second wave of data collection is currently underway. This new data will allow us to investigate further the implications of these differences in time devoted to academic, enrichment, and recess activities.

Another limitation of this form of data is that we do not have measures that allow us to determine what factors are causing these differences in time use. School policies and/or finances may cause teachers of less advantaged students to forgo enrichment and recess activities. Alternatively, as suggested by the earlier work on classroom time use (e.g., Berliner, 1979), poor classroom management, a greater number of disruptive students, and differences in teaching style contribute to the variation in the amount of time devoted to academics. For some students, more time in academics, at the expense of enrichment and recess activities, may not translate into more engaged time in academics, since engaged time is a subset of allocated time.

Although more research is necessary to understand why minority students receive fewer enrichment and recess activities, the findings from this paper have implications for the debate on the equity of educational experiences. Regardless of one's stance in the debate among educators, parents, and policy makers about the purpose of schooling (academics-only vs. well-rounded), the differences in opportunities afforded students of different races is striking. The content of the school day for African American students differed dramatically from that of White students. A larger number of White students' experiences in school included exposure to enriching experiences, such as the creative arts and/or physical education, providing them with the opportunity to learn other skills and competencies needed for a productive and rewarding future. These "extras," however, did not come at the expense of academic learning time, raising questions about the efficiency of the time devoted to learning academic subjects for non-White students.

In this paper we provided a snapshot of students' time in school. The time diaries represent one school day in these students' lives. Thus, we cannot assume that students who do not participate in an activity category on their diary do not participate in that activity on another day. The reported diary day was randomly selected, and as such gives us a pretty good idea of how elementary school students spend their time in a generalized sense. We found substantial variation in the length of the school day and how the school day was spent. Students in school for the longest day had 87 more hours per year to learn academic subjects—the equivalent of more than 13 additional full school days devoted to academics. Our research indicates that minority students, who attended school for less time each day than White students, did not receive less instruction in academic subjects. Instead, time devoted to recess and enrichment activities was reduced (or eliminated) to allow for comparable time in academics. Although minority students receive comparable amount of academic instruction, it comes at a sacrifice of other important dimensions of their development.

APPENDIX

Responses for Teacher Time Diary

Question	Response Choices
Where was he/she?	<ol style="list-style-type: none"> 1. Classroom 2. Lab/specialty room (art, science, etc.) 3. Lunch room 4. Gym 5. Outside 6. Principal's office 7. Pull-out (specify reason) 8. Other (specify)
Who was doing this activity with the child?	<ol style="list-style-type: none"> 9. Main teacher 1. Specialist teacher 2. Assistant teacher 3. Aide 4. Student teacher 5. Parent(s) 6. Student(s) 7. Administrator 8. Other (specify)
Were you with the child at the time?	<ol style="list-style-type: none"> 1. Yes (skip next question) 2. No (answer next question only)
What did you do during this time?	<ol style="list-style-type: none"> 1. Working with other students 2. Planned future lessons 3. Clerical tasks 4. Talked with parents 5. Talked with colleagues 6. Comforted another child
How was the class structured for this activity?	<ol style="list-style-type: none"> 1. Whole class 2. Small groups 3. Individually
What instructional format was used for the child's activity?	<ol style="list-style-type: none"> 1. Not applicable (e.g., recess, gym) 2. Lecture 3. Demonstration 4. Visual aids 5. Manipulatives 6. Worksheets 7. Games 8. Discussion 9. Question and answer 10. Centers 11. Test/quiz 12. Student participation 13. Other (specify)
What materials were used for the child's activity?	<ol style="list-style-type: none"> 1. Not applicable (e.g., recess, gym) 2. Basal reader

What was the child's behavior like during this activity?

3. Textbook
 4. Storybook or novel
 5. Worksheets
 6. Teacher-made materials
 7. Computers
 8. Commercially published games
 9. Other (specify)
 1. Attentive
 2. Actively participating
 3. Disruptive
 4. Daydreaming
-

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Notes

1 We calculated the total time in school by summing the times reported for each activity during the school day. The total from this calculation (6 hours and 30 minutes) is 5 minutes less than when we calculated the total length of the school day by subtracting school ending time from the time school began. We use the first calculation for two reasons. First, there are fewer missing data. And second, since all analyses are based on the times reported for each activity, this method provides a more consistent sum. This sum (389.5 minutes) is used as the denominator in the calculation of all percentage of time variables.

2 Students' gender is not included in the table because there were no significant differences between boys and girls in how time is allocated to activities.

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