

# School Start Time

## Advisory Committee Report

November, 2010

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## Superintendent's Advisory Committee on School Start Times Executive Summary

### Framing Questions for the Committee

- The overarching charge to the Advisory Committee was
  - To determine what school hours are in the best interests of the health and well-being of adolescents
- Other considerations included possible proposals
  - To enhance the safety of bus transportation for students
  - To structure our tiers of bus deployment to minimize the riding time for students
  - To implement a transportation schedule that is cost neutral

The Committee considered many aspects of research in the area of adolescent sleep patterns, conducted over 30 meetings over a nine-month period, produced an interim study report, and conducted several surveys. The Committee concluded that the most egregious problem of our current schedule is early start time for our high school, which is aggravated by the earlier start time for the 100 plus students who take Advanced Placement laboratory science courses.

- Survey results showed that high school parents overwhelmingly support the later start time for students. Concerns were expressed about jobs, athletics and other after-school activities, and availability for after-school sibling care.
- When given a choice of start times for the elementary schools of 7:30, 8:00, 8:30 or 9:00, 50% of parents preferred the 8:30 to 9:00 start time and 50% preferred the 7:30 to 8:00 start time.

To alleviate the concern regarding our current early start time for the high school, and to address the research-based adolescent sleep-need studies, the Committee proposed a range for new start times for our schools. I have discussed the range with the Committee leaders and have proposed the times in the chart at the bottom of this sheet. In addition to addressing the primary focus of the Committee, these start times will result in:

- Reduced exposure of our students to transportation and driving during hours of darkness
- The implementation of four tiers for our 20 contracted buses. This will allow the middle and the high school to be run on separate tiers, resulting in reduced time for riding
- Shorter durations for riding time for our middle school students, due to the deployment of 20 buses instead of our current 18 on the middle school tier
- A later start time for the high school by 40 minutes
- An 8:45 a.m. start time for elementary schools, which is a balance between the current start time, the preferred start time and the 9:00 start prevalent at Commonwealth elementary schools
- Enhanced traffic flow and safety around the NAECC, Atkinson and NAMS consolidated campus
- Only a 5-minute changed start time for the Middle School
- Adequate planning time to minimize any impact on athletics and other after-school programs
- A more comprehensive program provided by Community Programs to include extended hours in the morning. The proposed schedule change is as follows:

North Andover										
Current 2010-11	Start time	End time	Lngh of Day	# Buses	Proposal for 2011-12	Start time	End time	Lngh of Day	Diff Start Time	# Buses
High School	7:15 AM	1:57 PM	6:42	12	High School	7:55 AM	2:37 PM	6:42	+40 min	12
Middle School	7:20 AM	2:05 PM	6:45	18	Middle School	7:15 AM	2:00 PM	6:45	-5 min	20
Atkinson	8:15 AM	2:50 PM	6:35	2	Atkinson	8:45 AM	3:20 PM	6:35	+30 min	2
Franklin	8:15 AM	2:50 PM	6:35	6	Franklin	8:45 AM	3:20 PM	6:35	+30 min	6
Kittredge	8:15 AM	2:50 PM	6:35	4	Kittredge	8:45 AM	3:20 PM	6:35	+30 min	4
Sargent	8:15 AM	2:50 PM	6:35	7	Sargent	8:45 AM	3:20 PM	6:35	+30 min	7
Thomson	8:15 AM	2:50 PM	6:35	1	Thomson	8:45 AM	3:20 PM	6:35	+30 min	1
NAECC	8:30 AM	2:30 PM	6:00		NAECC	8:30 AM	2:30 PM	6:00	same	
St Michaels	9:00 AM	3:15 PM	6:15	8	St Michaels	8:25 AM	2:40 PM	6:15	-35 min	8

Should this schedule be approved by the School Committee, I am proposing a Review Committee meet quarterly to assess the implementation of this new schedule.

November 15, 2010

November 8, 2010

Mr. Christopher Hottel  
Superintendent of Schools  
North Andover Public Schools  
1600 Osgood Street, Suite 3-59  
North Andover, Massachusetts 01845

Dear Superintendent Hottel:

The School Start Time Advisory Committee was charged with the task of re-evaluating issues relating to the feasibility and advisability of changing the time for the start of the school day after their initial presentation to the School Committee on May 20, 2010. The purpose of the extended study and evaluation period, in addition to addressing concerns articulated by the School Committee, was to include parents and teachers who had become interested in participating on the Committee after the May presentation. As of this date, the Committee has met a total of 31 times.

**Committee Recommendation:**

Based on: 1) extensive research presented in May; 2) further review of bus schedules and costs; 3) input from parents who have attended informational sessions held during PTO meetings this year; and 4) responses to the elementary parent survey, the Committee is prepared to recommend that it is in the best interest of the students of North Andover to adjust the start times of our schools within the following ranges:

North Andover High School	7:40-7:55 a.m. to 2:12-2:27 p.m.
North Andover Middle School	7:20-7:35 a.m.* to 2:05-2:20 p.m.
Elementary Schools	8:40-8:55 a.m. to 3:05-3:20 p.m.
St. Michael's School (dedicated buses)	7:55-8:10 a.m. to 2:20-2:35 p.m.

\* As the Middle School would have its own transportation tier, the actual morning pick-up time could be as much as 20 minutes later than the current schedule.

This recommendation is made after a vote of the 13 member Committee- twelve members in favor with one member not in favor.

**Discussion:**

This Committee was initially formed to address concerns that our current start time schedules at the High School and Middle School were not compatible with the minimum healthful sleep requirements of adolescents and was negatively impacting scholastic and, potentially, athletic performance. After months of research and discussion, the Committee prepared and presented a report, *Adolescents and Sleep*, along with five pages of corresponding research and data in support of this premise. During the Committee presentation to the School Committee on May 20, 2010, the concerns articulated by School Committee members and parents were that changing the school start times from the status



quo would be too disruptive to current family and work schedules and that we should seek additional alternatives to the nine bus schedules contemplated in the report. After the presentation in May, the Committee expanded to include elementary parents and teachers, and the Committee continued its research throughout the summer. However, further research evidence gathered by the Committee has only bolstered the position that delayed start times for students is a viable strategy to enhance learning. Adolescents need more sleep than they usually get, and lack of sleep affects students' behavior and ability to learn. Student performance may fluctuate radically between morning and afternoon classes. (*Delaying School Start Times Benefits Teens*, Rachael Rettner, LiveScience July 5, 2010; *Delayed School Start Times May Improve Adolescent Behaviors*, Health, Deborah Brauser, Medscape Medical News, July 7, 2010.) For additional data, please refer to "Follow Up and Additional Research," Section 5A.

Potential barriers to delayed start times articulated by a majority of elementary parents include additional day care costs if children start school after their parents leave for work. If, on the other hand, the elementary schools started prior to the High School, those parents who relied on older siblings for child care would also need to seek outside day care. The Committee has sought input from the Director of Community Programs to address these issues. Mr. Galante has assured the Committee that he would adjust their programs to meet the needs of parents as necessitated by the new bell times. For specifics, see "Follow Up and Additional Research," Section 5F. It should be noted that the elementary start times under the current recommendation are a minimal shift of no more than one-half hour from the current schedule. Other concerns have centered around the sports schedules of high school students. High School Principal, Carla Scuzzarella, and Athletic Director, Jon Longley, are "...committed to doing what is clearly in the best interest of our students' health, and...confident that there are no insurmountable obstacles." For the entire text of "Later Start at NAHS: Making it Work," see "Follow Up and Additional Research," Section 2. There was also a request to look at additional busing scenarios. These included: 1) eliminating busing for all high school students; 2) having targeted bus stops throughout town for the High School; and 3) using public transportation through the MVRTA for high school students. For specifics, please see "Follow Up and Additional Research," Section 3. It should be noted that the Committee's recommendation will add flexibility to planning of bus schedules and routes. Students will benefit from a higher quality of service in terms of bus load and in many instances, shortened bus ride time.

## **Conclusion**

Our current start times at the High School and Middle School not only exacerbate the negative impact highlighted by the research provided, but are counter-productive to what is considered best for our students. Moving the start times as proposed provides increased busing flexibility; and by utilizing the programs provided by Community Programs for our younger students, we should see a significant, positive impact on the quality of life, health and productiveness of our adolescent students.

Respectfully submitted,  
School Start Time Advisory Committee,

Jane Broderick, Timra Carlson, Gregg Gilligan, Kevin Hutchinson, Cindy Jalbert, Maggie Maloney, Joan McQuade, Lynne Mehlman, Maria Mesinger, Carla Scuzzarella, Erik Slivka, Bonnie Wolstromer and Pam Zengilowski

## SCHOOL START TIME FAQs

The Superintendent's Advisory Committee spent many hours researching the proposed school time change. We took into consideration busing, working parent's schedules and **most importantly** the health, safety and well being of our students. At our first meeting last spring we were all in agreement that change is hard for everyone and that any change could potentially cause stress and anxiety for some families. With this in mind we worked towards a goal that would provide the best solution **first and foremost** for the students of North Andover and also what would potentially work best for the transportation of students and working parents. Based upon the Spring School Start Time Survey and the most recent survey for the Elementary school parents (October and November 2010), there was a 60% to 70% agreement by parents that a later start time for the High School would be beneficial to the health, safety and well being of adolescents. Although change may be difficult, these results illustrate that most parents agree with the research. Below you will find a list of the frequently asked questions:

### **1. *Why did North Andover decide to review the school start times?***

The Superintendent of Schools formed an Advisory Committee to study the possibility of later school start times in response to concerns voiced by parents, school officials and PTO's regarding the current early start time for the High School and Middle School. The committee's primary goal was to pursue what is best for the health, safety and overall improved academic performance of our North Andover students. Scientific research shows that adolescence body clocks are set differently than younger children and adults and typically they cannot fall asleep until 11:00 p.m. Early adolescence occurs between 10 to 14 years of age and late adolescence occurs between 15 to 19 years.

### **2. *Who is on the Advisory Committee?***

The Advisory Committee is comprised of: the Assistant Superintendent, principals, teachers, Transportation Director and parents who have children in the Elementary, Middle and High Schools.

### **3. *What kinds of research support the belief that adolescents require more sleep?***

#### **National Sleep Foundation**

School Start Time Study, Center for Applied Research and Educational Improvement  
Minneapolis Public Schools Start Time Study/K. Wahlstrom, G. Wrobel ,  
P. Kubow (Center For Applied Research and Education Improvement,  
University of Minnesota)

First Bell Survey-Wolfson & Carskadon, Brown University 1998

American Journal of Medicine

Journal of Clinical Sleep Medicine

Division of Sleep Medicine, Harvard Medical School

Various District & Popular Studies (Wayland, MA and Minneapolis)

National Institute of Health

National Commission on Sleep Disorders

American Academy of Sleep Medicine

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National Center for Sleep Disorders Research  
National Association of School Psychologists  
MA Department of Education and NCLB (No Child  
Left Behind)

**4. *Why does changing the High School start time impact the Middle and Elementary Schools?***

North Andover currently contracts 20 buses which are used to transport students to the Elementary, Middle, High School and Saint Michael's School. Because of the large physical size of our town and the non-central location of our schools, the start times must be staggered. Therefore, should the High School start time change to a later time it will affect the Elementary and Middle Schools.

**5. *Why can't all the schools start at once by contracting more buses?***

Starting all of the schools at the same time would mean the school system would need at least 58 buses and the cost would be over \$2,800,000. The current cost per bus is \$49,550. Additionally, if North Andover did not contract for transportation the town would have to purchase buses, hire drivers, mechanics, inspectors, managers and supervisors. This would not be cost effective for the town.

**6. *What is the tiered timing grid?***

The tiered timing grid illustrates the start time and end time of each school. Tier 1 represents the first group of buses that pick up and drop off students for the High School and Middle School. Tier 2 represents the second group of buses that pick up and drop off students at the five elementary schools and the Tier 3 represents the same for Saint Michael's School. The town of North Andover covers a large area and unless more buses are used we will need to continue to use the 3 tiered system for transporting the children to and from school. This means there will be an early tier, a middle tier and a later tier.

**7. *Why are the Elementary school's start times affected since this is an adolescent issue?***

The Elementary schools start times are affected because of the transportation issues outlined in question 4, 5 and 6.

**8. *How Many Students are enrolled in the North Andover School District? And, how many of these students take the bus to school?***

From the 2009/2010 school year, here are the numbers, including the students the town buses to Saint Michael's school:

**Total # North Andover Public School Students:** 4,502

Total # riding bus: 2,143 or 48%

**Total # Elementary School Students (K-5):** 2,174

Total # riding bus: 1,162 or 53%

**Total # Middle School Students (6-8):** 1,071

Total # riding bus: 635 or 59%

**Total # High School Students (9-12):** 1,257

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Total # riding bus: 346 or 28%

**Total # Saint Michael Students: 284**

Total # riding bus: 204 or 72%

**9. *Since there is research that supports earlier start times for Elementary school students, why isn't the Advisory Committee looking more closely at an earlier start time for them?***

The Superintendent's Advisory Committee entertained many different options for school start times. The most viable bell time models were put in the first start time survey (from April, 2010) and the results clearly showed more parents in favor of a later Elementary start time than an earlier Elementary school start time when given a choice between the two. This appeared to be the case for two main reasons:

- 1) It is too drastic a time change for the Elementary schools to be on the first transportation tier (the earliest in the town).
- 2) It would cause difficulties for those parents who depend on older children to babysit after school.

**10. *Will the school district incur additional costs as a result of the school start times changing?***

One of the primary goals of the Superintendent's Advisory Committee was to look at all options available for the implementation of a later school start time but only considered the options that were cost neutral to the school district.

**11. *How will later start times affect High School Athletics:***

Both the NAHS Principal, Dr. Carla Scuzzarella and Athletic Director, Jon Longley are committed to doing what is best for the health and well being our students. They have scrutinized later start times and believe the Cape Ann League will accommodate any changes to the start time. The League will be able to make these accommodations if given enough notice. Please refer to Dr. Scuzzarella's letter "Later Start At NAHS: Making It Work" on the school's website.

**12. *How does the North Andover start time compare to the other schools in the Cape Ann League?***

North Andover High School has the second earliest start time/dismissal time. The starting times range from 7:20 a.m. (Newburyport) to 8:00 a.m. (Lynnfield). The dismissal times range from 1:55 p.m. (Newburyport) to 2:26 p.m. (Lynnfield). Also, any student taking an AP Science Class is required to be at the North Andover High School at 7:00 a.m., twenty minutes before the earliest start time in the Cape Ann League.

**13. *Why must the Advanced Placement (AP) Science classes at NAHS begin at 7:00 a.m., 25 minutes prior to the start of all other classes? Does the town offer any transportation options to get students to the early AP Science classes offered at NAHS?***

There are 103 students taking AP Science classes at NAHS this year. NAHS currently runs on a trimester schedule with a 5 class daily schedule and all classes run for

## SCHOOL START TIME

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about an hour. The AP Science classes require extra lab time and therefore do not fit into the one-hour time block by the current schedule. In prior schedules, when NAHS had 6 periods in a day, the AP Science Classes took up two periods. But today, if two classes were devoted to science, a student wouldn't be able to take enough other, required classes. Attending school for an extra 25 minutes per day lets them fit in the AP Science class lab and still take 4 additional classes. The AP Science students arrive at school 25 minutes early so that they can participate in a class that runs for about an hour and a half. Currently the town does not provide transportation options for students who wish to take AP Science at NAHS; students are required to provide their own transportation to school.

#### ***14. Aren't the NAHS students performing well enough? Why should we make a change if their academic performance is not suffering?***

We can always find students that are successful even under adverse conditions. For years the Sargent School had excessively high class size, 30+ in some grades. Many of these students did very well, scored proficient and advanced on MCAS and continued to do well in later years. Unfortunately, some didn't do well and needed additional support the smaller class provides. Despite all the studies and research regarding student learning, would we really want advocate for 30+ kids in a class simply because high achieving students are able to perform well under these conditions?

#### ***15. Why make a change?***

The research about the need for adolescents to get more sleep and their inevitable sleep phase delay means an early high school start is detrimental to the overall health and well being of our teenagers. Please refer to the research section of the website for more detailed information about the benefits of enough sleep and the detrimental effects of sleep deprivation.

#### ***16. What opportunities were there for feedback?***

The Superintendent's Advisory Committee asked for feedback, formally and informally, from the North Andover community. Some of the opportunities were as follows:

- District Wide Start Time Survey Announcement via Superintendent Hottel's E-mail last on April 27, 2010.
- Clarification that the District Wide survey is for ALL parents, not just parents of Middle and High School students.
- May 20, 2010 School Committee Working Session with the Start Time Advisory Committee. Public comment was welcomed and the session was publicized in the local newspapers.
- PTO and PAC meetings were used as a vehicle for parent feedback, especially in the fall of 2010, when the Start Time Advisory Committee was put on the agendas to ensure parents were aware of this vehicle for communication.
- School Principals also helped announce the opportunity for feedback at PTO meetings this fall.

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- An additional elementary school start time survey was available on-line in October and November, 2010.

**17. How do the Health Officials of our town feel about a later school start time?**

From Dr. Chan, School Physician and Health Advisory Committee member: "I know that there are many factors to take into consideration when deciding the school start time. However, from a medical point of view, a later start time would be beneficial to our students. Fatigue would impact mental and physical health and safety of our students. From that standpoint, I would support a later start time."

**18. What options are available for working parents whose work schedule will be affected by the change?**

Community Programs currently offers two programs to accommodate working parents with before and after school care, Breakfast Club and Kids Stop. Community Programs will revise their program offerings to accommodate the change and continue to meet the needs of working parents. Community Programs offers parents the opportunity to participate in a tuition assistance program. Income eligibility is determined using a sliding fee scale developed by the Department of Education.

**19. How would a later dismissal time impact high school students who have jobs after school?**

The committee spoke to other districts and found that after school employers are usually very accommodating. If necessary, NAHS could send a form letter to the employers of local high school students, letting them know of the dismissal time change, many months ahead of time so that there would be sufficient time to make any necessary schedule adjustments.

**20. What happens next?**

Superintendent of Schools, Christopher Hottel, is scheduled to make his recommendation (based upon all the information provided) to the School Committee during the November 18, 2010 School Committee meeting. This will be the first reading by the School Committee. The School Committee is scheduled to vote on the matter at the December 2, 2010 School Committee Meeting.



Carla A. Scuzzarella, Principal  
scuzzarellac@northandover.k12.ma.us  
Chester Jackson, Assistant Principal  
jacksonc@northandover.k12.ma.us  
Michael Grant, Assistant Principal  
grantm@northandover.k12.ma.us

430 Osgood Street  
North Andover, MA 01845  
978-794-1711

[www.nahs.northandoverpublicschools.com](http://www.nahs.northandoverpublicschools.com)

## Later Start at NAHS: Making it Work

The Superintendent's School Start-Time Advisory Committee's primary goal is to pursue what is best for the health, safety and overall improved academic performance of our North Andover students. A later release time will have an impact on extra-help sessions, and the Extra-curricular/Athletic Programs at North Andover High School. However, we are committed to doing what is clearly in the best interest of our students' health, and we are confident that there are no insurmountable obstacles. Should a decision to move to a later start/release time take place, we will work to ensure a smooth transition so that our students continue to benefit from their experiences in our Extra-curricular and Athletic programs, and possibly have additional opportunities to seek help from teachers.

***Ideally, if a change comes, NAHS would make the transition most easily if the school day began at 7:45 am\* (with the first class starting at 7:55 am) and ended at 2:27 pm.***

\*As the Committee needs to consider the schedule of the entire district, as well as St. Michael's School, the Superintendent's School Start Time Advisory Committee will likely propose a range of acceptable start times for all schools that would accomplish our goal of a later start time for the high school.

### EXTRA HELP

The later start time would enable teachers to be available for students at least 2 mornings each week between 7:30 and 7:55 am – perhaps a better time than the current availability of 7:00-7:25 am. The window of time from when school ends to when the majority of practices begin would not change; therefore, students (especially athletes) would still be able to make arrangements to see teachers after school, before heading to an activity or practice. On occasion, this window may not exist because of the distance of an away contest, but we are confident that buses to away contests can depart NAHS by 2:45-2:50 pm and arrive at the contests on time.

### AP SCIENCE CLASSES

Due to the time needed for labs, the 3 AP Science classes (Biology, Chemistry and Physics) currently begin at 7:00 am and run through the first block of each day, all year. This is obviously not in the best interest of our students' health. A later start time means that the AP Science classes would begin at 7:30 am, which, although not ideal, would be better for our students.

## ATHLETICS

### ***Practices***

The majority of North Andover High School's teams begin practice shortly after the end of the school day. At the current time NO team begins practice prior to 2:30 pm. If school were to end at 2:30 pm, practices would generally begin at/after 3:00 pm.

Please note that currently our practices are scheduled in two (2) hour chunks throughout the school year: 2:30-4:30, 4:30-6:30 and 6:30-8:30. With a later release, those blocks of time would be changed to the following: 3:00-5:00, 5:00-6:00 and 7:00-9:00. The NAHS Scarlet Knight Marching Band is one activity that will be directly impacted by the proposed change. At the present time the band gets onto the football field in the 6:30 pm slot. The proposed change means the band will be able to practice on the football field in the 7:00 pm slot.

The Winter and Spring sports seasons will experience very little impact other than the time changes mentioned above. In the Fall, the loss of daylight due to Daylight Savings (late October/early November) is a concern. Golf may lose some practice time, but given that the majority of the Fall season is complete by early November, the impact is probably minimal. Currently, we occasionally have to dismiss a Fall team early to play a State tournament game because the site does not have lights, and this practice would continue.

### ***Home Contests (@ half of each season)***

The CAPE ANN LEAGUE schedules league contests to begin at 3:30, 3:45 or 4:00 pm. If NAHS has a change in release time to 2:27 pm, we will become one of the two latest release times in the league, with eight of the fourteen schools releasing @ 2:15 or later (we would make 9). Home contests will still begin at one of the three (3) times mentioned above.

### ***Away Contests (@ half of each season)***

With a 2:27 pm dismissal and a traditional start time of 3:30, 3:45, or 4:00 pm, the vast majority of our contests will remain the same, with jv Field Hockey and Golf in the Fall having some added issues. Assuming that buses will leave NAHS between 2:45 and 2:50 pm, we would ask the League to try to schedule us for the 3:45 or 4:00 game times so our teams will have proper warm-up time after arrival.

JV Field Hockey typically plays after the Varsity finishes. Once the loss of light due to Daylight Savings becomes a factor in late October/early November, impending darkness could impact the remaining 2-4 away contests. This will not be the case with all schools we compete against as a number have lights. To offset some of the potential difficulties we could:

- Schedule away contests against teams closer to NA later in the season so darkness may not be a factor, and travel to the further schools earlier, prior to Daylight Savings



- Play JV games on days separate from varsity and freshmen normally play; this could potentially result in site changes as well as additional transportation costs since Varsity & JV travel together currently
- Schedule games for Saturdays

Golf is the only other sport that may be impacted by a change in release time as the number of hours it takes to play a match is beyond our control – there is no time limitation for a golf match. However, now that Daylight Savings has moved to late October/early November, golf should typically be completed by the last week of October, even including tournament play and league championship matches. NAHS will be dismissing golfers to play in the Division 2 State Match and Cape Ann League Championship on Monday, October 18<sup>th</sup> and Thursday, October 21<sup>st</sup> respectively. This has been done in the past consistently for Golf at this time of year as the availability of golf courses dictates these championships.

**\*\*Please note that the CAPE ANN LEAGUE will begin to schedule for next Fall in November. It will be extremely important for NAHS to know what our release time will be for next year PRIOR to the league finalizing Fall athletic schedules (usually mid-December). We believe that given enough notice, the League will accommodate North Andover High School's change in release time.**

#### EXTRA-CURRICULAR ACTIVITIES

All students who participate in after-school clubs and activities would have the same amount of time allotted to partake of these activities as they have now. Even student-athletes who wish to attend a club meeting or activity will have time to attend prior to practice just as they do at the present time.

It is our opinion that a later school start/end time would not be detrimental to the extra help time, Extra-curricular/Athletic program at NAHS. While all will be impacted by the later release time, our students are sure to benefit from the extra sleep that they will get as a result of the proposed change. The research clearly indicates that adolescents will be more alert and that they are more apt to find time for breakfast – something that does not regularly occur with the current 7:15 start of school. These variables alone provide some of the positive rationale for the proposed change.

*Respectfully submitted,*



Carla A. Scuzzarella, Ed.  
Principal



Jonathan Longley  
Athletic Director

## North Andover Public Schools Transportation Information

Please note that these notes assume a thorough understanding of North Andover's current 3 tiered school transportation system.

### Current Configuration of our Tiered Transportation Plan

Tier 1 High School and Middle School

Tier 2 All Elementary Schools

Tier 3 St. Michael's School

Example: Bus #1 provides service for HS/MS students. At the conclusion of that run the bus continues to the next tier (Elementary) and provides service for those students. And, finally, at the conclusion of the elementary run, bus #1 continues to tier 3 and provides service to St. Michael's Students. This is performed in both morning and afternoon.

### 2009/2010 Bus Rider Information

**Eligibility: K- 6 and over 2 miles from school ride for free. Everyone else who wants to ride must pay.**

#### Total # North Andover Public School Students: 4,502

Total # riding bus	# who pay to ride
2,143 or 48%	857 or 19%

#### Total # Elementary School Students (K-5): 2,174

Total # riding bus	# who pay to ride
1,162 or 53%	171 or 8%

#### North Andover Middle School Students (6-8): 1,071

Total # riding bus	# who pay to ride
635 or 59%	392 or 37%

#### North Andover High School Students (9-12): 1,257

Total # riding bus	# who pay to ride
346 or 28%	294 or 23%

#### St. Michael's School Students (K-8): 284

Total # riding bus	# who pay to ride
204 or 72%	42 or 15%

Please note that the # *who pays to ride* column doesn't include the free bus riders who do not pay because of the free and reduced transportation program.

The 2009/2010 cost to ride was \$300.00. The fee would increase by at least \$45.00 per student due to the reduction in revenue if high school buses were eliminated.

### Transportation Options

#### Consolidation of NAHS and NAMS Bus Route Stops

Consolidation of bus route stops is possible, but because of the construction of the town, this may only speed up the bus routes by about 5 minutes each, on average. Many stops are necessary for safety reasons and cannot be changed. In order to calculate the time between the different bus tiers, we must use the longest routes. For instance, for NAMS, the longest 45-minute route might be able to have stops consolidated and get down to 40 minutes. Forest Street is a good example of a road in town which is very narrow and for safety reasons, all the buses must run one way and therefore all the students on that street get house stops. For safety reasons, any further consolidation of elementary school bus routes is not possible.

## **Complete NAHS and NAMS Pick Up and Drop Off Changes~ “Express Bus”**

It might be possible to completely change the current bus routes and have the buses run only down main streets, similar to the MVRTA. For instance, a bus could run down Salem Street and students would be responsible for getting to one of the bus stops from their various side streets. This option has the advantage that it could dramatically cut down on the time to transport students to and from the schools and their bus stops. A disadvantage will likely be that quite a few parents would bring their children to the bus stops in their cars, thus causing potential traffic problems on the streets adjacent to the main bus routes. Also, would the buses have to wait a long time for the children to get out of their parent’s cars and get into the buses? Another potential disadvantage would be that some parents might find it easier to simply bring their students directly to school rather than to the “Express Bus” stops. It is important that parents understand that all house stops would be eliminated by this plan.

There is an algebraic equation for calculating bus route time so we could take a look at a few routes to see what the time savings might be with this option. The express bus option could potentially cut the route time allowance by a third. This would then allow the school bell times to be closer together, a distinct advantage in our town with the 3 tiered bus system.

Please note that historically any bus route changes (even minor changes) have generated many complaints from parents. Also, there are many requests for house stops and bus route changes.

### **Change the way NAHS students use the buses**

Currently we “sell” a seat on a bus. Students purchase transportation to/from school. What if we sold morning and afternoon seats? There were 346 students who paid for seats to/from NAHS last year, but only approximately 200 students took the buses home in the afternoons. This option would probably not change the amount of time it takes to get everyone to school in the morning (not an impact on start times) but it could reduce the amount of time it takes to get everyone home in the afternoons.

### **Elimination of NAHS Buses**

Another option would be to completely eliminate buses to NAHS. If this were done, the obvious advantage would be that NAHS could have any start time and not be impacted by the start times of the other schools in town. There would only be 2 bus tiers, elementary and NAMS/St. Michael’s. These two tiers would have start times approximately 45 minutes apart. For instance, NAMS and St. Michael’s could begin at 7:55 and the elementary schools could begin at 8:40 am. Most likely everyone would be happier with the school start times in this scenario. One disadvantage of this option would be increased NAHS traffic. Another disadvantage would be loss of revenue for the buses from the paying NAHS riders and subsequently probably a \$45 increase in the bus fee for the rest of the bus riders. 20 buses would still be necessary unless the elementary schools started at different times.

### **Carpooling for NAHS Students**

This could be an option for the 346 students who currently take buses to NAHS if the buses were eliminated. A parent run, volunteer organization might be best for this option. Additionally, if NAHS went to a system without any buses, traffic considerations would need to be discussed with the school administration (maybe a staggered start time?) and North Andover police.

### **Additional, Separate Buses for NAHS Students**

It would probably take 12 buses to transport only NAHS students to the high school using our current bus stop configuration because of the large layout of the town.

### **Elimination of NAHS and NAMS Buses**

The option of eliminating the NAMS buses as well as the NAHS buses doesn't seem feasible, given that there are 635 students who rode to NAMS last year. The traffic would likely be outrageous if all those students were driven to school. Further, we can't completely eliminate NAMS buses: 6<sup>th</sup> graders are eligible if they live 2.0 miles or more from school.

## **MVRTA**

Kristen Hollenbeck is involved in an initiative to use public transportation (MVRTA) for after school transportation to the Youth Center and YMCA. Perhaps a long term project would be to see if the MVRTA can help transport some North Andover students to and from school. Kevin Hutchinson said Gloucester uses public transportation for high school students and they even have a late bus.

## **Combination of Options**

When discussing the various transportation options, we need be very clear that with our current three tier system, someone has to go early (first tier) and someone needs to go late (last tier). This assumes we put the high school on the middle tier, since research indicates this is best for our students. We would need get an estimate of potential time savings for the "Express Bus" option and then see how it might shorten the time between tiers, therefore enabling the first tier to start later and the last tier to end earlier.

The reality is that there are many different combinations that might be used to change our current 3 tiered system and therefore enable more ideal start times for all tiers. As we move forward, we will keep in mind that it might be a combination of an "Express Bus" provided by the school district and an MVRTA bus option for the main thoroughfares in town, or a combination of an "Express Bus" and carpooling.

## **Input from North Andover Police Department**

We would need to get police department input about traffic concerns if major changes were made, particularly if buses to NAMS were eliminated.

## **Bus Contract Negotiations**

Negotiations are in progress.

## **Economies Of Scale**

Perhaps North Andover could share part of a larger contract with Andover or Haverhill, Methuen, Lawrence, Tri-Town or other surrounding school districts. Jim Mealy would need to get in touch with surrounding towns prior to the bid process this fall and find out when their contracts are up and if there is any interest in bidding together.

**Study: Delay in school start time significantly improves adolescent sleep, mood and behavior**

## **Hasbro Children's Hospital study finds improvements in adolescent sleep, mood and behavior**

A pilot study conducted in a small private high school confirms what many have been touting for years: the benefits of a delayed school start time. Judy Owens, MD, a sleep expert with Hasbro Children's Hospital, reports that a modest delay in school start time of only 30 minutes was associated with significant improvements in adolescent alertness, mood and health. Her findings are published in the July issue of the *Archives of Pediatric and Adolescent Medicine*.

Inadequate sleep in adolescents, defined as less than nine hours per night, is a known problem and a major public health concern. Owens and other pediatric sleep experts have been encouraging delayed school start times to address the concern. To prove the benefits of a delayed start time in doing so, Owens conducted a study at a small private high school in Rhode Island, which delayed their start time from 8 a.m. to 8:30 a.m.

Biological changes in adolescents can cause what is known as a "phase delay," which calls for later sleep onset and wake times due to a shift in circadian rhythms. The optimal sleep amount for adolescents is nine to 9.5 hours per night, despite the shift in their preferred wake/sleep times. Owens, who is also an associate professor at The Warren Alpert Medical School Brown University says, "On a practical level, this means that the average adolescent has difficulty falling asleep before 11 p.m., so the ideal wake time is around 8 a.m."

She also notes, "In addition to these biological factors, adolescents are exposed to multiple environmental and lifestyle factors such as extracurricular activities, homework and after-school jobs, which can all significantly impact their sleep patterns. As a result of sleep loss during the week, adolescents often "sleep in" on the weekends, further contributing to a disruption of their circadian rhythm and decreased daytime alertness levels." Owens comments further, "It's not surprising that a large number of studies have now documented that the average adolescent is chronically sleep-deprived and pathologically sleepy."

The consequences of sleep deprivation are far-reaching: impairments in mood, attention and memory, behavior control and quality of life; lower academic performance and a decreased motivation to learn; and health-related effects including increased risk of weight-gain, lack of exercise and use of stimulants.

During the winter term, the start time at St. George's School was delayed by 30 minutes, to 8:30 a.m. In order to avoid extending the length of the school day, small schedule changes (five to 10 minutes) were made across both academic and non-academic periods. For boarding students, lights out procedures and restrictions on use of electronics did not change.

Students who received parental permission and who agreed to participate in the study responded to an e-mail survey that was conducted both before and after the start time change. The Sleep Habits Survey (SHS) is a comprehensive 8-page self-report survey that has been administered to over 3,000 high school students in RI, as well as in a number of other countries, and is used to

<http://www.news-medical.net/news/20100707/>

## Study: Delay in school start time significantly improves adolescent sleep, mood and behavior

evaluate typical sleep and wake behaviors. It also includes scales measuring sleepiness, sleep-wake behavior problems and [depression](#). Of the 278 students who agreed to the survey and received consent, 225 completed the first survey and 201 completed the second survey.

The study found that there was a significant average increase in sleep duration on school nights of 45 minutes across all grades (nine to 12) after the change in the school start time. The self report showed drastic declines in the percent of students who felt they "rarely/never" got enough sleep (69 percent to 34 percent), and those reporting "never" being satisfied with their sleep (37 to 9 percent).

Other findings of note are that fewer students reported being impacted by fatigue or lack of motivation, and the percent of students rating themselves as "at least somewhat unhappy" or depressed decreased significantly, from 66 percent to 45 percent. Also, there was a considerable reduction in the number of students who reported visiting the school's health center for "fatigue-related complaints," dropping from 15 percent to only five percent. Meanwhile, the health center also reported a 56 percent decrease in requests for "rest passes." Another finding supporting the benefits of the delayed start time is that teachers reported a 36 percent reduction in absences or tardiness for the first class of the day.

Overall the percent of students getting less than seven hours of sleep after the change in school start time decreased by 80 percent. Still, only a small minority of the students (11 percent) reported getting the recommended nine or more hours of sleep. Owens sums up the findings, "A modest start time delay was associated with a significant increase in self-reported sleep duration and a decrease in a number of ratings of daytime sleepiness. Perhaps most importantly, students rated themselves as less depressed and more motivated to participate in a variety of activities."

The researchers conclude, "The ongoing debate regarding the more widespread institution of later school start times is a controversial one with many logistical considerations. It is particularly important to continue to assess outcomes in schools that have implemented such a change." They also comment, "The results of this study add to the growing literature that supports the potential benefits of such an adjustment to better support adolescents' sleep needs and circadian rhythm in order to improve the learning environment and their overall quality of life."

Source: [Lifespan](#)



## Later School Start Times May Foster Better Students

### High school pushed back start of day by 30 minutes, with good results

**By Amanda Gardner**  
*HealthDay Reporter*

MONDAY, July 5 (HealthDay News) -- High school students at a private school in Rhode Island who started school a half-hour later in the morning were in better moods, more alert, less depressed and more likely to actually attend class than before the time change, a new study shows.

In fact, the experiment was so successful that the school has now permanently shifted its start time from 8 a.m. to 8:30 a.m.

"At the end of the experimental period, there was not a single faculty member, student or administrator who wanted to go back to the old start time," said Dr. Judith Owens, lead author of a paper appearing in the July issue of the *Archives of Pediatrics & Adolescent Medicine*.

"Mornings are so much more pleasant at my house I can't even begin to tell you," added Owens, whose daughter just graduated from the school and who participated in the experiment. "Many of the faculty members said the same thing: that it improved the quality of their lives as well as the perception that students were just better rested and more ready to start the day."

The study bolsters the evidence that teens have special sleep needs.

"Sleep medicine specialists have long known that delaying high school start times helps teenagers sleep better," said Dr. Heidi V. Connolly, chief of the division of pediatric sleep medicine at the University of Rochester Medical Center in New York. "Teenagers are biologically programmed to prefer a later bedtime and a later wake-up time so it is not surprising that they struggle with early school start times."

Adolescents' circadian rhythms do shift during puberty. "What that boils down to is that teenagers are not able to fall asleep as early as they did when they were in middle school or elementary school," Owens explained. "There is as much as a two-hour shift in sleep-wake cycles."

But while they may be going to bed later, they still need the same amount of sleep, making sleep deprivation "rampant among American teens," Connolly said.



Owens was approached by St. George's School in Middletown, R.I., about doing a study on a later school start time.

"There was a lot of push back initially from faculty, administration and athletic coaches who felt that half an hour wasn't going to make a substantial difference and was going to be disruptive to academic and athletic schedules," Owens said.

But they agreed to give it the old college try.

About 200 students in grades 9 through 12 filled out questionnaires on sleep habits both before and after the time change. The researchers also measured tardiness and visits to the school health center.

After the time change, students went to bed an average of 18 minutes later at night and slept an average of 45 minutes longer.

The proportion of students getting at least eight hours of sleep a night jumped from 16.4 percent to 54.7 percent, while those getting less than seven hours a night decreased by almost 80 percent.

Other parameters improved as well.

"Virtually everything we looked at -- ranging from the amount of sleep to self-reported sleepiness during the day, to mood and depression symptoms, to interest and motivation to participate in academic and athletic activities -- moved significantly in a positive direction," Owens stated.

As noted in an accompanying journal editorial, research into this topic started in Minnesota 13 years ago and resulted in the Minneapolis Public School District changing the start time of high schools to 8:40 a.m. and of middle schools to 9:10 a.m.

But there's still a lot of resistance to the idea, with some school superintendents actually losing their jobs after supporting the idea of later school times, wrote editorialist Kyla Wahlstrom, of the University of Minnesota.

And even with this new evidence, it's not clear if such changes would work at all schools or if the dramatic improvements seen here would even last.

"It might just be the teenagers were going to bed the same time and got an extra 30 minutes of sleep which was beneficial," said Dr. Lawrence Friedman, director of the adolescent medicine program at the University of Miami Miller School of Medicine. "But will [a later school start] translate to teenagers wanting to stay up another half hour? If so, then it would cancel out the benefit."

### **More information**

<http://consumer.healthday.com/>





There's more on adolescent sleep needs at the [National Sleep Foundation](#).

SOURCES: Judith A. Owens, M.D., director, pediatric sleep clinic, Hasbro Children's Hospital, and associate professor, pediatrics, Brown Medical School, Providence, R.I.; Heidi V. Connolly, M.D., chief, division of pediatric sleep medicine, and associate professor, pediatrics and psychiatry, University of Rochester Medical Center; Lawrence Friedman, M.D., professor, pediatrics, and director, adolescent medicine program, University of Miami Miller School of Medicine; July 2010 *Archives of Pediatrics & Adolescent Medicine*

Last Updated: July 06, 2010

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## **Delayed School Start Time Associated With Improvements in Adolescent Behaviors**

*ScienceDaily (July 8, 2010)* — A short delay in school start time appears to be associated with significant improvements in adolescent alertness, mood and health, according to a report in the July issue of *Archives of Pediatrics & Adolescent Medicine*, one of the JAMA/Archives journals.

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"Beginning at the onset of puberty, adolescents develop as much as a two-hour sleep-wake phase delay (later sleep onset and wake times) relative to sleep-wake cycles in middle childhood," the authors write as background to the study. The study also notes that, "adolescent sleep needs do not decrease dramatically, and optimal sleep amounts remain about nine to 9 1/4 hours per night."

Judith A. Owens, M.D., M.P.H., of the Hasbro Children's Hospital, Providence, and colleagues, studied 201 students in grades 9 through 12 attending an independent high school in Rhode Island. For the purposes of the study, class start time was delayed 30 minutes, from 8 a.m. to 8:30 a.m. Additionally, students were required to complete the online retrospective Sleep Habits Survey before and after the change in school start time.

According to the study, after the delayed start time, "students reported significantly more satisfaction with sleep and experienced improved motivation. Daytime sleepiness, fatigue and depressed mood were all reduced. Most health-related variables, including Health Center visits for fatigue-related complaints, and class attendance also improved." The later start was also associated with a significant increase in sleep duration on school nights of 45 minutes as well as a reduction in weekend oversleep (the difference between school day and non-school day wake times).

The percentage of students getting less than seven hours of sleep decreased by 79.4 percent, and those reporting at least eight hours of sleep increased from 16.4 percent to 54.7 percent. Additionally, the percentage of students rating themselves as at least somewhat unhappy or depressed decreased significantly (from 65.8 percent to 45.1 percent), as well as the percentage who felt annoyed or irritated throughout the day (from 84 percent to 62.6 percent). In terms of health consequences, significantly more students self-reported visiting the Health Center for fatigue-related symptoms before the delayed start time (15.3 percent versus 4.6 percent).

The study also found that after the delayed start, "students rated themselves as less depressed and more motivated to participate in a variety of activities and were less likely to seek medical attention for fatigue-related concerns in conjunction with the change in start times." Additionally, "despite the initial considerable resistance voiced by the faculty and athletic coaches to instituting the start time delay and the original intentions of the school administration to return to the 8 a.m. start time after the trial period, students and faculty overwhelmingly voted to retain the 8:30 a.m. start for the spring term."

### **Editorial: School Start Time and Sleepy Teens**



"Given that Owens et al report similar findings to the earliest research, there is a growing body of evidence that changing start time for high schools is good for adolescents. So, the follow-up question is: 'Why aren't more schools changing to a later time?'" writes Kyla Wahlstrom, Ph.D., of the University of Minnesota, St. Paul, in an accompanying editorial. "The answer to that is actually very complicated...The time that a school starts is felt to be sacrosanct by those who have come to rely on it as a predictable part of their day and life."

"The role of data and factual information in discussing and advocating for changing school start times is key...when the first findings emerged in 1997, the question remaining at that time concerned the effect of the later start time on academic outcomes. Longitudinal research has since found several significant academic effects, such as decreasing the dropout rate, but a direct correlation between later start time and academic achievement on normed tests has not been substantiated."

"In the end, having comprehensive information and impartial presentation of what is known, and not assumed, is needed to really begin the local dialogue," Dr. Wahlstrom concludes. "The community at large is, after all, the final arbiter, as all must truly live with the consequences. Our teenagers need and deserve our best informed thinking about all of this; having the facts in hand is the best place to start."

**Editor's Note:** *This article is not intended to provide medical advice, diagnosis or treatment.*

*Email or share this story*

# Dublin may alter school start times

Monday, October 11, 2010 02:53 AM

By [Charlie Boss](#)

THE COLUMBUS DISPATCH

Juggling homework, soccer and her part-time job has left Emily Jones with little energy for the start of classes at 7:30 a.m. at Dublin Scioto High School. It isn't until fourth period - about three hours later - that she finally feels alert.

"I'm tired all the time," said Jones, 17, a junior.

She typically gets about six hours of sleep on a school night.

A majority of high-school students said in a recent survey that they don't finish homework on time and doze off in class at least once a week. Many of the 849 students surveyed said they struggle to stay alert.

To help in Dublin, district leaders are considering delaying school start times to give students more rest.

"We don't believe our community is much different from others," said Deputy Superintendent Mike Trego, who heads a group of administrators, teachers, parents and students who have explored the best practices in starting and ending times.

"The same things are happening. Students are not prepared when they are tired and drowsy," Trego said.

Teens need about 9 1/4 hours of sleep each night to function best, according to the National Sleep Foundation, a nonprofit group based in Washington, D.C., that supports later starting times. A recent foundation poll found that most teens are not getting nine hours of sleep.

Dublin schools recently invited parents and residents to complete an online survey that includes possible scenarios for a different daily schedule.

The biggest changes would move starting times for middle and high schools 70 minutes later, while elementary schools could move their starting time 55 minutes earlier. That means classes could begin at 8 a.m. at the elementaries, 8:35 a.m. at the high schools and 9:25 a.m. at the middle schools.

Responses to the new survey and from students will help frame any recommendations the group presents to district officials by the end of the year, Trego said. Any changes would be implemented in the 2011-12 school year.

[http://www.dispatch.com/live/content/local\\_news/stories/2010/10/11/dublin-may-alter-school-start-times.html](http://www.dispatch.com/live/content/local_news/stories/2010/10/11/dublin-may-alter-school-start-times.html)

## THE COLUMBUS DISPATCH

Other districts have similarly changed their schedules.

In northeastern Ohio, Hudson schools moved starting times for middle- and high-school students 30 minutes later, to about 7:50 a.m. for the middle school and about 8 a.m. at the high school.

Researchers have found that later starting times can make a difference.

In 1998, a University of Minnesota researcher followed the Minneapolis Public Schools, which delayed starting times at seven high schools to 8:40 a.m. from 7:15 a.m. The study found that attendance and enrollment rates improved, students were more alert, and fewer kids reported depression.

Dublin Scioto junior Kris Simonton said he gets about seven hours of shut-eye a night, which leaves him rested throughout the day. But pushing back the start of school, he said, would help.

"I know people say they would stay up later so they can wake up later," said Simonton, 17. "I don't think I would do that. You'd be up for the same number of hours. I'd go to bed at the same time and spend another hour in bed."

[cboss@dispatch.com](mailto:cboss@dispatch.com)

## Sunrise Sunset Times for North Andover

There are three categories of twilight to consider when evaluating sunrise/sunset times. **Twilight** is known as the time between dawn and sunrise, **as well as** sunset and dusk. Scattered sunlight in the upper atmosphere illuminates the lower atmosphere. The sun is not actually visible because it exists below the horizon. Incidentally, 4% of all car accidents occur at this time.

**Astronomical Twilight** is when the **sun's center point is between 12 and 18 degrees below the horizon**. Astronomical Dawn is when the sun is higher than 18 degrees below the horizon. It's difficult at this hour to see faint stars and galaxies because the sun has begun to illuminate the sky. Astronomical Twilight ends at Astronomical Dusk or late evening when faint objects in the sky become visible again because the sun is lower than 18 degrees below the horizon.

**Nautical Twilight** is when the **sun is between 6 and 12 degrees below the horizon**. In clear weather, bright stars and the horizon become visible. Generally it is too dark to engage in outdoor activity without supplemental light as the horizon is indistinct. It begins with Nautical Dawn and ends at Nautical Dusk when the sun is lower than 12 degrees below the horizon.

**Civil Twilight** is when the **sun is below the horizon but its center point is less than 6 degrees below the horizon**. Civil Dawn or Twilight starts with the center at exactly 6 degrees below the horizon. Civil Dusk ends when the sun is 6 degrees below the horizon in the evening. The sky is illuminated at Civil Dusk or Twilight with the moon and stars visible and it is usually bright enough for outdoor activity without additional light. Civil Twilight usually lasts only 21 minutes near the equator.

Start/end times are when the geocentric position of the Sun is 96 degrees from the zenith position.

Sunrise/sunset times are based on a clear view of a flat horizon plane and that plane is at the same altitude as the observer. Sunrise is when the upper part of the sun is visible and sunset is described as when the sun is about to disappear below the horizon.

We have included proximate information on sunrise sunset times for the town of North Andover and encourage readers to compare the charts against our current start times and earliest bus pickups in our district. We selected the months of October, December and May for variation. Several of our current district bus pick ups occur prior to what is known as "general sunrise".

**Resources:** [www.sunrisesunset.com](http://www.sunrisesunset.com), [www.timeanddate.com](http://www.timeanddate.com), [www.en.wikipedia.org](http://www.en.wikipedia.org), Almanac.com

## **North Andover Sunrise/Sunset Log**

*(Based upon the 10th day of each month)*

	<b>Rise</b>	<b>Set</b>
<b>Jany</b>	7:14	4:31
<b>Feb</b>	6:48	5:10
<b>Mar</b>	6:05	5:45
<b>April</b>	6:12	7:21
<b>May</b>	5:28	7:55
<b>June</b>	5:06	8:22
<b>July</b>	5:16	8:24
<b>August</b>	5:45	7:54
<b>September</b>	6:18	7:04
<b>October</b>	6:51	6:11
<b>November</b>	6:29	4:27
<b>December</b>	7:03	4:11

information gathered from Almanac.com

**Daylight Saving Begins the 2nd Sunday in March**  
**Daylight Saving Ends the 1st Sunday in November**



# October 2010

## Andover, Massachusetts

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Twi A: 5:06am Twi N: 5:40am Twi: 6:12am Sunrise: 6:41am Sunset: 6:27pm Twi: 6:55pm Twi N: 7:28pm Twi A: 8:01pm Moonrise: none Moonset: 2:38pm	2 Twi A: 5:08am Twi N: 5:41am Twi: 6:14am Sunrise: 6:42am Sunset: 6:25pm Twi: 6:53pm Twi N: 7:26pm Twi A: 7:59pm Moonrise: 12:15am Moonset: 3:17pm
3 Twi A: 5:09am Twi N: 5:42am Twi: 6:15am Sunrise: 6:43am Sunset: 6:23pm Twi: 6:52pm Twi N: 7:24pm Twi A: 7:57pm Moonrise: 1:29am Moonset: 3:51pm	4 Twi A: 5:10am Twi N: 5:43am Twi: 6:16am Sunrise: 6:44am Sunset: 6:22pm Twi: 6:50pm Twi N: 7:23pm Twi A: 7:56pm Moonrise: 2:45am Moonset: 4:21pm	5 Twi A: 5:11am Twi N: 5:44am Twi: 6:17am Sunrise: 6:45am Sunset: 6:20pm Twi: 6:48pm Twi N: 7:21pm Twi A: 7:54pm Moonrise: 4:02am Moonset: 4:50pm	6 Twi A: 5:12am Twi N: 5:45am Twi: 6:18am Sunrise: 6:46am Sunset: 6:18pm Twi: 6:46pm Twi N: 7:19pm Twi A: 7:52pm Moonrise: 5:19am Moonset: 5:19pm	7 Twi A: 5:14am Twi N: 5:46am Twi: 6:19am Sunrise: 6:47am Sunset: 6:17pm Twi: 6:45pm Twi N: 7:17pm Twi A: 7:50pm Moonrise: 6:37am Moonset: 5:49pm New Moon: 1:45pm	8 Twi A: 5:15am Twi N: 5:48am Twi: 6:20am Sunrise: 6:48am Sunset: 6:15pm Twi: 6:43pm Twi N: 7:16pm Twi A: 7:49pm Moonrise: 7:55am Moonset: 6:22pm	9 Twi A: 5:16am Twi N: 5:49am Twi: 6:21am Sunrise: 6:50am Sunset: 6:13pm Twi: 6:41pm Twi N: 7:14pm Twi A: 7:47pm Moonrise: 9:12am Moonset: 7:00pm
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31 Twi A: 5:41am Twi N: 6:13am Twi: 6:47am Sunrise: 7:16am Sunset: 5:39pm Twi: 6:08pm Twi N: 6:42pm Twi A: 7:14pm Moonrise: 12:30am Moonset: 2:21pm						

Daylight Saving/Summer Time is in effect for the entire month.  
 Courtesy of [www.sunrisesunset.com](http://www.sunrisesunset.com)  
 Copyright © 2001-2006 Steve Edwards



# December 2010

Andover, Massachusetts

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Twi A: 5:13am Twi N: 5:47am Twi: 6:22am Sunrise: 6:54am Sunset: 4:12pm Twi: 4:43pm Twi N: 5:18pm Twi A: 5:52pm Moonrise: 2:13am Moonset: 1:16pm	2 Twi A: 5:14am Twi N: 5:48am Twi: 6:23am Sunrise: 6:55am Sunset: 4:11pm Twi: 4:43pm Twi N: 5:18pm Twi A: 5:52pm Moonrise: 3:27am Moonset: 1:48pm	3 Twi A: 5:15am Twi N: 5:49am Twi: 6:24am Sunrise: 6:56am Sunset: 4:11pm Twi: 4:43pm Twi N: 5:18pm Twi A: 5:52pm Moonrise: 4:41am Moonset: 2:26pm	4 Twi A: 5:16am Twi N: 5:50am Twi: 6:25am Sunrise: 6:57am Sunset: 4:11pm Twi: 4:42pm Twi N: 5:18pm Twi A: 5:52pm Moonrise: 5:52am Moonset: 3:10pm
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Standard/Winter Time for entire month.  
Courtesy of www.sunrisesunset.com  
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# May 2011

Andover, Massachusetts

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Twi A: 3:50am Twi N: 4:31am Twi: 5:09am Sunrise: 5:39am Sunset: 7:43pm Twi: 8:14pm Twi N: 8:51pm Twi A: 9:33pm Moonrise: 4:28am Moonset: 6:30pm	2 Twi A: 3:48am Twi N: 4:29am Twi: 5:07am Sunrise: 5:38am Sunset: 7:44pm Twi: 8:15pm Twi N: 8:53pm Twi A: 9:34pm Moonrise: 4:55am Moonset: 7:32pm	3 ● Twi A: 3:46am Twi N: 4:28am Twi: 5:06am Sunrise: 5:37am Sunset: 7:45pm Twi: 8:16pm Twi N: 8:54pm Twi A: 9:36pm Moonrise: 5:27am Moonset: 8:33pm New Moon: 1:51am	4 Twi A: 3:44am Twi N: 4:26am Twi: 5:04am Sunrise: 5:35am Sunset: 7:46pm Twi: 8:17pm Twi N: 8:56pm Twi A: 9:38pm Moonrise: 6:04am Moonset: 9:32pm	5 Twi A: 3:42am Twi N: 4:24am Twi: 5:03am Sunrise: 5:34am Sunset: 7:47pm Twi: 8:19pm Twi N: 8:57pm Twi A: 9:40pm Moonrise: 6:49am Moonset: 10:28pm	6 Twi A: 3:40am Twi N: 4:23am Twi: 5:01am Sunrise: 5:33am Sunset: 7:48pm Twi: 8:20pm Twi N: 8:58pm Twi A: 9:41pm Moonrise: 7:41am Moonset: 11:19pm	7 Twi A: 3:38am Twi N: 4:21am Twi: 5:00am Sunrise: 5:31am Sunset: 7:50pm Twi: 8:21pm Twi N: 9:00pm Twi A: 9:43pm Moonrise: 8:40am Moonset: none
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Daylight Saving/Summer Time is in effect for the entire month  
Courtesy of [www.sunrisesunset.com](http://www.sunrisesunset.com)



***Start Times Advisory Committee Research and Information Resources:***

5/26/10

**Later School Start Time Cuts Teens' Car Crash Risk**

[http://www.nlm.nih.gov/medlineplus/news/fullstory\\_72808.html](http://www.nlm.nih.gov/medlineplus/news/fullstory_72808.html)

**The Early Bird Gets the Bad Grade- Nancy Kalish**

<http://www.nytimes.com/2008/01/14/opinion/14kalish.html?pagewanted=print>

**Celtics' Rivers lets his Players Skip the Shootaround and Get some Sleep-H. Beck  
NYTimes**

[http://www.projo.com/celtics/content/sp\\_bkn\\_celtics\\_sleep\\_12-22-09\\_OVGSO9B\\_v2.105266a.html](http://www.projo.com/celtics/content/sp_bkn_celtics_sleep_12-22-09_OVGSO9B_v2.105266a.html)

<http://cehd.umn.edu/Pubs/Researchworks/sleep.html>

[http://www.sleepfoundation.org/site/c.huIXKjM0IxF/b.2511881/k.A14A/Eight\\_Major\\_Obstacles\\_to\\_Delaying\\_High\\_School\\_Start\\_Times.htm](http://www.sleepfoundation.org/site/c.huIXKjM0IxF/b.2511881/k.A14A/Eight_Major_Obstacles_to_Delaying_High_School_Start_Times.htm)

<http://www.npr.org/templates/story/story.php?storyId=6896471>

<http://www.sciencedaily.com/releases/2006/03/060328081509.htm>

[http://www.educationworld.com/a\\_admin/admin/admin314.shtml](http://www.educationworld.com/a_admin/admin/admin314.shtml)

<http://www.physorg.com/news98892114.html>

[http://www.sleepfoundation.org/site/c.huIXKjM0IxF/b.2511905/k.80A2/Changing\\_School\\_Start\\_Times\\_Wilton\\_Connecticut.htm](http://www.sleepfoundation.org/site/c.huIXKjM0IxF/b.2511905/k.80A2/Changing_School_Start_Times_Wilton_Connecticut.htm)

<http://www.icsd.k12.ny.us/redistricting/startend/starttimesummary.pdf>

[http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?\\_nfpb=true&\\_EricExtSearch\\_SearchValue\\_0=ED493187&ERICExtSearch\\_SearchType\\_0=no&accno=ED493187](http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_EricExtSearch_SearchValue_0=ED493187&ERICExtSearch_SearchType_0=no&accno=ED493187)

<http://www.pbs.org/wgbh/pages/frontline/shows/teenbrain/view>



<http://www.pbs.org/wgbh/pages/frontline/shows/teenbrain/from/sleep.html>

<http://www.sleepfoundation.org/>

<http://www.cbsnews.com/stories/2006/03/28/earlyshow/living/parenting/main1444540.shtml>

<http://archives.cnn.com/2000/HEALTH/children/09/28/sleepy.teens01/>

**National Sleep Foundation:**

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**Edina High School** <http://www.edina.k12.ma.us/whatsup/laterstart/>

Graham, Mary G. (editor) 2000 **Sleep Needs, Patterns and Difficulties of Adolescents: Summary of Workshop, Forum on Adolescence**, Board on Children, Youth and Families, National Research Council, Institute of Medicine, and Commission on Behavioral and Social Sciences, National Academy of Sciences (USA)

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**Wayland.MA Public Schools – Report of School Start Time Task Force 12-2004**

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[www.wickedlocal.com/plympton/news/opinions/letters//x2009615028/](http://www.wickedlocal.com/plympton/news/opinions/letters//x2009615028/)

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**Department of Education Massachusetts 781-338-3700** (no statistical data collected on delayed start schools in MA)

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**Cape Ann League Listing of High School and Elementary Schools and their Start Times?**

**2009 MCAS Results** – Boston.com website

**Our Speaker to the NA School Committee-Mary Carskadon, Ph.D 5/2010**  
[http://research.brown.edu/myresearch/Mary\\_Carskadon%20](http://research.brown.edu/myresearch/Mary_Carskadon%20)

**Boston Magazine-September Education Issue 2009**

**Morgan Healey paper** –current Boston College Journalism student who graduated NAHS

**Bryan Sakakeeny paper-** student who graduated NAHS 2008 Maxwell Scholarship submission

Congresswoman **Zoe Lofgren proposes the ZZZ's to A's Act** – California  
[www.lofgren.house.gov](http://www.lofgren.house.gov)

**Commonwealth of Massachusetts 2009 Act Authorizing A Study of Starting Times and Schedules** – [www.mass.gov/legis/bills/senate](http://www.mass.gov/legis/bills/senate)

**Causes of Childhood Obesity** [www.education.com/reference/article/causes-childhood-obesity/](http://www.education.com/reference/article/causes-childhood-obesity/)

<http://www.prohealthcare.org/wellness/health-news/children/3-home-habits-help-youngsters> 3/3/2010

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**Nemours Foundation**

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**Blue Valley School District, Overland Park, Kansas Study Effectiveness of Later School Start Times 2006** -[www.eric.ed.gov/ERICDocs/data/ericdocs2sql](http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql)

NOTE: Any questions regarding the information included in this list, please contact:  
NA Start Times Advisory Committee member, Bonnie Wolstromer or Lynne Mehlman



**Sleep Is The Right Ingredient For Academic Success**

<http://www.sciencedaily.com/releases/2007/08/070801122222.htm>

**Better sleep is associated with improved academic success**

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**Sleep helps reduce errors in memory**

[http://www.eurekalert.org/pub\\_releases/2009-09/msu-shr\\_1091009.php](http://www.eurekalert.org/pub_releases/2009-09/msu-shr_1091009.php)

**Creative problem solving enhanced by REM sleep**

[http://www.eurekalert.org/pub\\_releases/2009-06/uoc--lms060309.php](http://www.eurekalert.org/pub_releases/2009-06/uoc--lms060309.php)

**Sleep helps you learn complicated tasks & recover forgotten skills**

[http://www.eurekalert.org/pub\\_releases/2008-11/uoc-shp111708.php](http://www.eurekalert.org/pub_releases/2008-11/uoc-shp111708.php)

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[http://www.eurekalert.org/pub\\_releases/2007-04/aaon-ssy040307.htm](http://www.eurekalert.org/pub_releases/2007-04/aaon-ssy040307.htm)

**Sleeping helps us put facts together**

<http://www.physorg.com/news98376198.html>

**Improving motor skills through sleep**

[http://www.eurekalert.org/pub\\_releases/2002-07/hms-pmp070102.htm](http://www.eurekalert.org/pub_releases/2002-07/hms-pmp070102.htm)

**Sleep Extension Improves Athletic Performance And Mood**

<http://www.sciencedaily.com/releases/2009/06/090608071939.htm>

**Extra Sleep Improves Athletes' Performance**

<http://www.sciencedaily.com/releases/2007/06/070613071054.htm>

**Sleep May Be Athletes' Best Performance Booster**

<http://www.psychiatryonline.org/cgi/search?sortspec=relevance&journalcode=all&fulltext=sleep+may+be+athlete%27s+best&submit.x=12&submit.y=12>

**Current & Additional Start Times Task Force Research Resources:  
October 2010**

**Best Public High Schools**

[www.bostonmagazine.com/2010\\_school\\_rankings/index.html](http://www.bostonmagazine.com/2010_school_rankings/index.html)

**Study: Delay in School Start Times Significantly Improves Adolescent Sleep, Mood and Behavior, Pilot Study at Hasbro Children's Hospital**

<http://www.news-medical.net/news/20100707/Study-delay-in-school-start-time-significantly-improves-adolescent-sleep-mood-and-behavior>

**Dublin May Alter School Start Times (Ohio)**

<http://www.dispatch.com/live/content/localnews/stories/2010/10/11/dublin-may-alter-school-start-times>

**Study Shows Teens Benefit From Later School Day**

[http://www.boston.com/news/education/k\\_12/articles/2010/07/06/study\\_shows\\_teens\\_benefit\\_from\\_later\\_school\\_day](http://www.boston.com/news/education/k_12/articles/2010/07/06/study_shows_teens_benefit_from_later_school_day)

**Later School Start times May Foster Better Students, High School Pushed Back Start of School Day by 30 Minutes with Good Results**

<http://consumer.healthday.com/Article.asp?AID=640822>

**Delayed School Start Time Associated with Improvements in Adolescent Behaviors, based on July 2010 Issue of Archives of Pediatrics & Adolescent Medicine, one of the JAMA/Archives Journals**

<http://www.sciencedaily.com/releases/2010/07/100705190532.htm>

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<http://archpedi.ama-assn.org/cgi/content/abstract/164/7/608>

**APSS: Later School Start Times May Cut Teen Car Crashes**

<http://www.medpagetoday.com/MeetingCoverage/APSS/20622>

**Later School Start Times ZZZ's to A's**

<http://articles.latimes.com/2010/aug23/health/la-he-school-time-20100823>

**School Start & Sleepy Teens**

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**Parent Survey is Final Piece on School Start Times**

<http://www.thisweeknews.com/live/content/dublin/stories/2010/10/13/parent-survey-is-final-piece-on-school-start-times.html>

**Teens & School Start Times 10/20/2010**

[www.sleepeducation.com/topic.aspx?id=42](http://www.sleepeducation.com/topic.aspx?id=42)

**EBSCOhostConnection: Research supports Later School Start Times**

<http://connection.ebscohost.com/content/article/1032741156.html>

**School Committee Weighs Changing School Start Times, Lucas, Eagle Tribune  
4/4/2008**

**Delaying School Start Times Benefits Teens**, Rachel Rettner, Live Science July 5, 2010

**Delayed School Start Times May Improve Adolescent Behaviors**, Health, Deborah Brauser, Medscape Medical News, July 7, 2010

**Sleep Deprivation Linked to Depression in Teens**, By Anne Harding,  
Health.com, June 9, 2010

<http://www.cnn.com/2010/HEALTH/06/09/sleep.deprivation.depression/index.html?iref=allsearch>

## Area Middle School Start Times

Andover	7:45-2:05	6 hr 20 min
Masco	7:35-2:20	6 hr 25 min
Nbpt	7:30-2:00	6 hr 30min
Methuen	8:30-3:00 (K-8)	6 hr 30 min
Amesbury	7:40-2:25	6 hr 25 min
Beverly	8:45-3:00	6 hr 15 min
Haverhill	8:30-2:45	6 hr 15 min
Lawrence	8:15-2:40 (1-8)	6 hr 25 min
Georgetown	7:30-2:15 (middle/high)	6 hr 45 min



## Start Time Advisory Committee Communication

### Superintendent Hottel's district wide emails:

**4/27/2010** District Wide Start Time Survey Announcement

**4/27/2010** CLARIFICATION that the District Wide Survey Announcement is for ALL parents, not just high school and middle school parents

**5/19/2010** School Committee Agenda for the May 20 Working Session with the Start Time Advisory Committee

**6/6/2010** Announcement that the Start Time Advisory Committee was adding members

**7/9/2010** Start Time Advisory Committee update/status

**8/26/2010** Start Time Advisory Committee update/status

**10/17/2010** Announcement that the District Website has been updated, our research is back online and Start Time Advisory Committee update/status

**10/31/2010** Announcement that the Elementary Survey will close on Nov. 3 and that new information will be added to the district web site

### Area Newspaper Articles:

**May 8, 2010 The Eagle Tribune Editorial** *Don't alter school starts to suit sleepy teens*

**May 12, 2010 The Eagle Tribune Letter to the Editor** *Later school start times will benefit teens* (announcement of the May 20 working school committee working session)

**May 18, 2010 The North Andover Citizen** *Learn about the sleep needs of students on May 20* (announcement of the May 20 working school committee working session)

**May 19, 2010 The Eagle Tribune Article** *School start times up for discussion in North Andover* (top of page 4 announcement of the May 20 working school committee working session)

**June 16, 2010 The Eagle Tribune Article** *Overhaul of school start time won't happen this fall* (announcement that the advisory committee will continue gathering community input)

#	Meeting Date	Comments
1	22-Jan-10	
2	04-Feb-10	
3	25-Feb-10	
4	04-Mar-10	
5	25-Mar-10	
6	01-Apr-10	
7	08-Apr-10	
8	13-Apr-10	
9	15-Apr-10	
10	29-Apr-10	
11	03-May-10	
12	06-May-10	
13	05-May-10	
14	10-May-10	
15	13-May-10	
16	18-May-10	There were a lot of phone calls this week in prep for the SC meeting.
17	20-May-10	SC Presentation at NAHS.
18	24-May-10	
19	27-May-10	
20	03-Jun-10	
21	09-Jun-10	
22	02-Jul-10	
23	19-Jul-10	
24	11-Aug-10	
25	26-Aug-10	
26	20-Sep-10	
27	30-Sep-10	
28	14-Oct-10	
29	26-Oct-10	
30	03-Nov-10	
31	08-Nov-10	

## Clarification of Current School Start Times

The Superintendent's School Start Time Advisory Committee clarified the current start times and the terms used by our schools, since there was some confusion about them at the May 20 working session with the School Committee.

7:15 am **High School Start Time:** Students must be in the building, visiting their lockers and be on their way to class

7:25 am **Class Instruction Begins:** Students arriving after 7:25 are considered late

1:57 pm **School Ends**

7:20 am **Middle School Start Time:** Students must be in homeroom, students arriving after 7:20 are considered late

7:33 am **Class Instruction Begins**

2:05 pm **School Ends**

8:00 am **Elementary Schools** are open and student drop off can begin

8:15 am **Elementary School Start Time/ Morning Exercises**

8:25 am **Class Instruction Begins: Students** arriving after 8:25 are considered late

2:50 pm **School Ends**

Community Program currently offers two programs:

Timing	Program	Cost per month	Offering	Available time
Before School	Breakfast Club	\$64 to \$131	2 days to 5 days	7:00 to 8:15 am
After School	Kids Stop	\$148 to \$262	2 days to 5 days	2:50 to 6:00 pm

Community Programs offers affordable childcare options on a monthly basis, costing approximately \$5 to \$7 per hour depending on usage. Parents can select to send their student 2, 3, 4 or 5 days to meet their individual needs. The Breakfast club is a more expensive program because it includes the cost of the student's breakfast.

The current start time is expected to be 20 to 25 minutes later. Community Programs will adjust the current programs to coincide with the new start and stop times of the elementary schools. Assuming a 20 minute change, the cost of the Breakfast club would increase by \$17 to \$35, per month while the cost of Kids Stop would decrease by \$16 to \$28 per month depending on the number of days attending.

Estimates are based on FY2011 pricing. Program pricing for FY 2012 will be available in February. Community Programs offers parents the opportunity to participate in a tuition assistance program. Income eligibility is determined using a sliding fee scale developed by the Department of Education.



[Print](#)

Subject **FW: some additional resources**  
From: **Barczak, Cheryl** <BarczakC@northandover.k12.ma.us>  
Sent: **Nov 1, 2010 09:39:05 AM**  
To: **bonwolstromer@verizon.net**

Here's a statement from our School Physician. He is also on the Health Advisory Committee.

Cheryl Barczak, RN MSN  
Lead Nurse  
North Andover Public Schools  
978-794-1711 x51054

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From: Kenny Chan [REDACTED]  
Sent: Monday, November 01, 2010 9:06 AM  
To: Barczak, Cheryl  
Subject: RE: some additional resources

Hi Cheryl,

I know that there are many factors to take into consideration when deciding the school start time. However, from a medical point of view, a later start time would be beneficial to our students. Fatigue would impact mental and physical health and safety of our students. From that standpoint, I would support a later start time.

Kenny

> From: BarczakC@northandover.k12.ma.us  
> To: kennychanmd [REDACTED]  
> Date: Thu, 28 Oct 2010 12:32:18 -0400  
> Subject: FW: some additional resources  
>  
> Kenny,  
> The school "start time" task force is looking for an endorsement or comment from our Health Advisory committee/ school physician on school start time.  
> could you provide me an email that you do or don't support a later start time for our students.  
> thanks  
>  
> Cheryl Barczak, RN MSN  
> Lead Nurse  
> North Andover Public Schools  
> 978-794-1711 x51054  
>

To: Start Time Advisory Committee; Superintendent Hottel; North Andover School Committee  
From: School Council, North Andover Middle School  
Date: November 2, 2010  
Re: NAMS Start Time Recommendations

NAMS School Council endorses the advisory committee recommended start times between 7:20-7:35. While the school start time is minimally changed from the current schedule, a later bus pick-up provided by separate busses for NAMS and NAHS would allow additional morning sleep time for the bussed students.

The School Council opposes significantly later start times (e.g. 8:50-9:05 am), because of potential negative impact on student attendance, tardiness and dismissal rates.

The School Council recommends a strong parent education component on the sleep needs of students.

NAMS School Council reviewed research and discussed the recommendations of the School Start Time Advisory Committee on October 28, 2010. Additionally, member of the council augmented the research with a focus on middle school needs. In attendance were: Janet Swiggart, Helen Pickard, Charina Lynn, Barry Connell and Joan McQuade.

Dr. Kevin Hutchinson, Assistant Superintendent  
North Andover Public Schools  
1600 Osgood Street  
North Andover, Ma. 01845  
November 5, 2010

Dear Dr. Hutchinson,

Please accept this letter as a summary of the School Start Time discussion by the NAHS School Council at our meeting on November 4, 2010.

The NAHS School Council supports the Superintendent's School Start-Time Advisory Committee's primary goal of pursuing what is best for the health, safety and overall improved academic performance of our North Andover students – especially as it applies to NAHS students.

The NAHS School Council continues to have reservations concerning our students who work after school and the number of changes already absorbed by our high school students over the past few years. These concerns were brought up at the School Committee meeting late last spring, and we want to be sure that the Start Time Advisory Committee continue to look at all implications a later start time/later dismissal time will have on the student body at NAHS.

Many students (who are not part of our Career Pathways Program) work right after school for local businesses that close at 5:00 p.m. (real-estate offices, law offices, doctor's offices, etc.). Students are able to get to work before 2:30 p.m. currently. The half an hour difference means a net loss of two and a half hours per week for our students, and could lead to NAHS students being unable to continue working in certain jobs. Given the current economy, this could be a problem for our students.

The students at NAHS have handled a large number of changes to the high school over the past several years. Granted that all changes were made to improve the quality of education offered at the high school, it has still been a lot. The NAHS School Council would like the Start Time Advisory Committee to continue to give thought to adding yet another change – albeit one important to the health and well-being of our high school students – for our students to absorb.

The NAHS School Council will continue to discuss this very important issue and look forward to the report and recommendation of the School Start Time Advisory Committee.

Respectfully,

Chris Carroll, (NAHS Staff) Mary Julie Gregoire (NAHS Staff), Pam Mesquita (NAHS Staff), Judy Normandin (NAHS Parent), Christine Rice (NAHS Parent), Liz Sharp (NAHS Parent), Nick Thomas (NAHS Student), Kara L'Italien (NAHS Student), Carla Scuzzarella (NAHS Principal)

» [Member login](#) » [Send my own surveys](#) » [Quick tour](#)

Start Time Survey - NA Elementary Schools

[View Individual Responses](#)

**Survey Results**

In response to concerns voiced by the town-wide PTO regarding the current early start times for the high school and middle school, North Andover School Superintendent Christopher Hottel formed a School Start Time Advisory Committee. This committee has been researching the possibility of later school start times. The Committee's primary goal is to research school start times and pursue what is best for the health, safety and overall improved academic performance of our North Andover students. They have provided information about possible changes in reports, which are available to you at [www.northandoverpublicschools.com/starttimes.cfm](http://www.northandoverpublicschools.com/starttimes.cfm). In a continued effort to solicit feedback from the Elementary community, we are distributing this additional survey. The results from this survey will be provided to the school Principals to share with the Committee. The survey has only 8 questions and should take less than 5 minutes to complete. Your responses are completely anonymous unless you choose to complete the optional name and email address fields. Thank you in advance for taking a few minutes out of your day to provide valuable feedback.

**1.** Please indicate the elementary school your child/children attend.

Atkinson Elementary		120	29%
Franklin Elementary		124	30%
Kittredge Elementary		69	17%
Sargent Elementary		33	8%
Thomson Elementary		65	16%
Total		411	100%

**2.** Are you in favor of changing the current elementary school start time?

Yes		119	29%
No		202	49%
Undecided		90	22%
Total		411	100%

**3.** If the school start times were to change, please indicate your preferred approximate start time.

7:30am		42	10%
8:00am		167	41%



8:30am		164	40%
9:00am		38	9%
Total		411	100%

**4.** In choosing a preferred approximate start time, please indicate why this is the best choice for your family.

Childcare Arrangements		84	20%
Work Schedules		199	48%
Impact on Optimum Learning Time		107	26%
Financial Reasons		18	4%
Sleep Schedules/Patterns		222	54%
Transportation		46	11%
Other, please specify <a href="#">View Responses</a>		30	7%

**5.** Considering the future and available optimal sleep studies, indicate if you would be in favor of a later high school start time if your child/children were high school students.

Yes		246	60%
No		78	19%
Undecided		87	21%
Total		411	100%

**6.** For demographic purposes, indicate how many children you have at each level. Please indicate using 0, 1, 2 or 3+.

[View 411 Responses](#)

**7.** Use this space to include additional comments the Committee should consider.

[View 156 Responses](#)

**8.** The following information is optional.

[View 106 Responses](#)

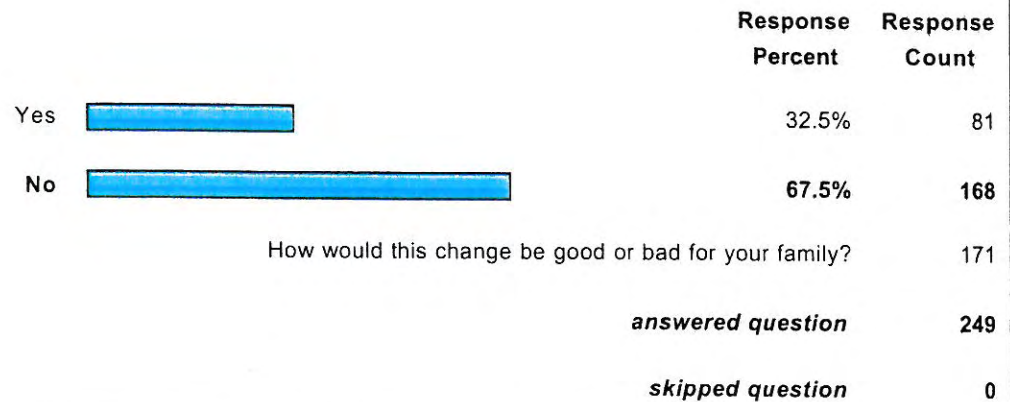


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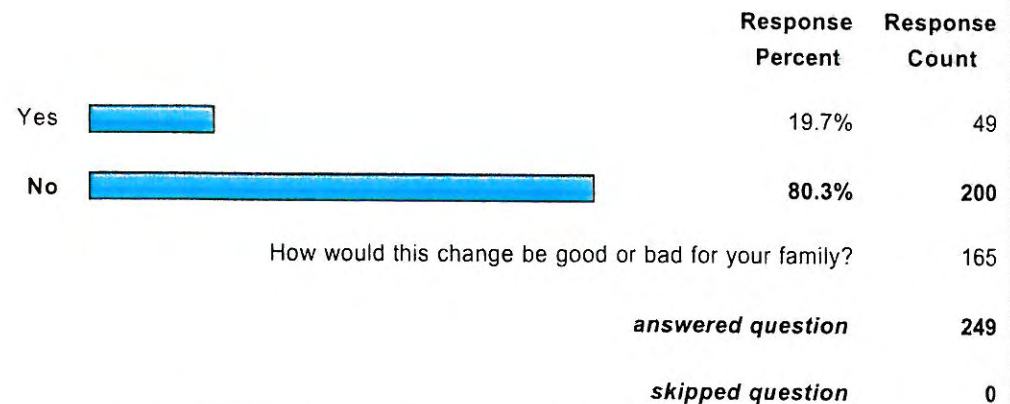
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## Sargent School Start Time Survey

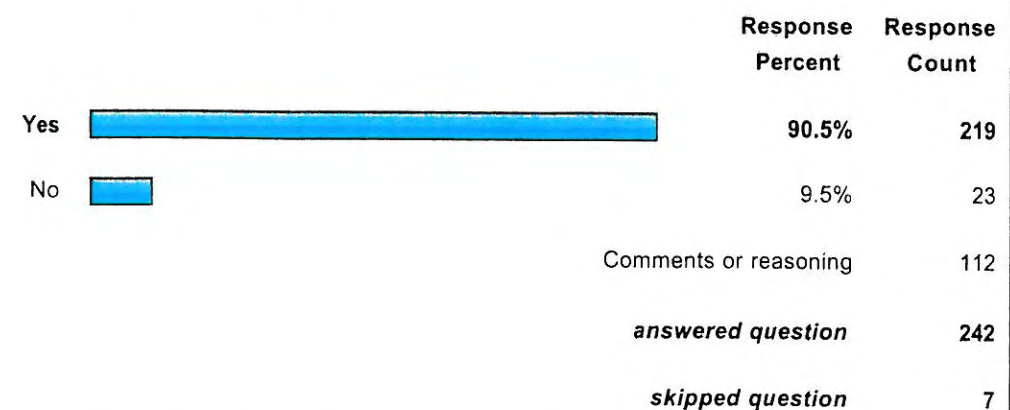
1. Would you be in favor of changing the elementary school start time to be around 9:00 am?



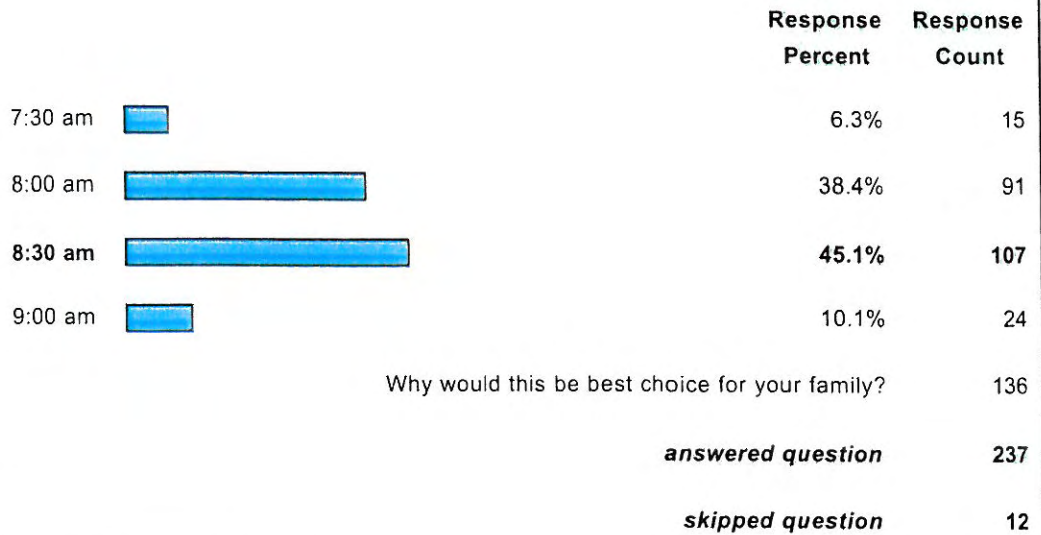
2. Would you be in favor of changing the elementary school start time to be around 7:30?



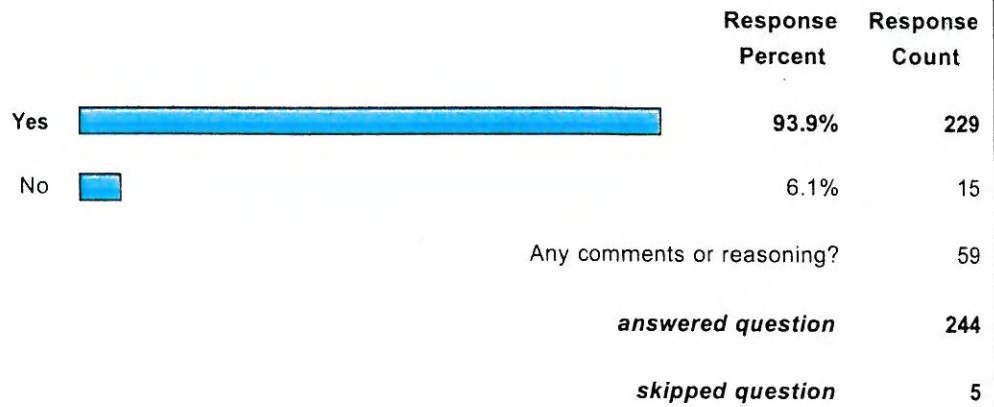
3. Would you be in favor of keeping the start time close to where it is?





**4. If you were able to choose which start time you preferred, would it be approximately:**





**5. Are you satisfied with the current elementary school start times?**



6. Thinking toward the future, and based on the available studies, would you be in favor of changing the high school start times if your children were high school students?

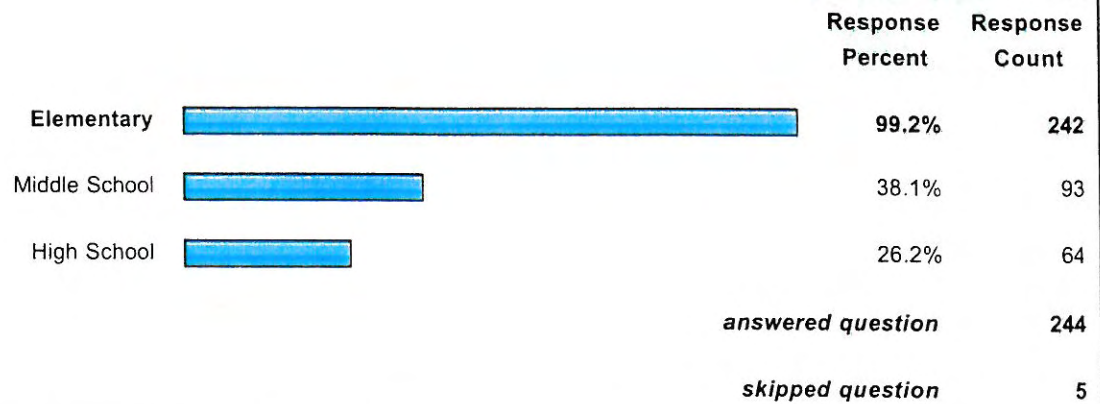
	Response Percent	Response Count
Yes 	65.2%	148
No 	34.8%	79
Please explain why or why not.		149
<i>answered question</i>		<b>227</b>
<i>skipped question</i>		<b>22</b>

7. For demographic purposes, are you a:

	Response Percent	Response Count
Parent 	100.0%	247
Teacher or Administrator 	1.2%	3
Student	0.0%	0
Other (please specify)	0.0%	0
<i>answered question</i>		<b>247</b>
<i>skipped question</i>		<b>2</b>



8. For demographic purposes, how many children do you have who are students at each level?



9. If you would like, you may leave your name and email address.

	Response Count
	66
<i>answered question</i>	66
<i>skipped question</i>	183