

# Frequently Asked Questions (FAQ) About Start Time Options

Spring, 2017

## Background

### **What is the Start Times Advisory Committee doing?**

The Start Times Advisory Committee (STAC) was formed to investigate the desirability and feasibility of a later morning start time for Masconomet and consider the options that exist and what the impacts may be for students of all ages, Kindergarten through grade 12. The committee is made up of voting members from each of the four school committees, as well as other non-voting members representing parents, administrators and teachers from Masconomet and the Tri-Town Union elementary schools, and has met regularly since April 2016 to investigate the possible need for a change in start time, how it might affect our schools, what is best for our community, and, if a change in start time is advisable, how it might be implemented. STAC has come to a consensus that, based on the research, additional sleep time for our adolescents would be beneficial to their health. STAC is now developing a number of options which could create the opportunity for additional sleep by making a change in start times while maintaining our other priorities. A final decision on a change in start time will be determined by all four school committees (Boxford, Middleton and Topsfield elementaries and Masconomet), with approval from all four required for any change impacting both Masco and the elementary schools.

### **Why is Masconomet considering a change in start time?**

Several prominent medical groups have all reviewed the available research and issued a statement calling for all middle and high schools to change their start time to be 8:30a or later, for the health and well being of our adolescents. These include the [American Academy of Pediatrics](#), the [Centers for Disease Control](#), the [American Medical Association](#), the [American Academy of Child & Adolescent Psychiatry](#), the [American Psychological Association](#), and the [Massachusetts Medical Society](#).

Our guiding principle throughout this process has been to work to provide the greatest benefit to the greatest number of students, while balancing that with the real-life concerns of our communities around cost, complexity, and change. Our 2016 survey showed that Masconomet students are not getting adequate sleep. Researchers tell us of serious short and long term risks to student health when our adolescents do not get adequate sleep. The research shows that when school starts at 8:30a or later, adolescents are more able to sleep during their natural sleep windows (about 11p-8a), which leads to more sleep and better health. The research is clear that when schools start later, adolescents get more sleep.

To learn more:

- To learn more about the research, watch [Dr. Owens' fall 2016 talk on adolescent sleep at Masconomet](#).
- To learn more about our fall 2016 sleep survey, watch the [sleep survey presentation](#), read the [executive summary](#), or read the results of the [parent survey](#), the [staff survey](#), and the [student survey](#). You can also read the [open responses and comments](#) from students, parents, and staff.

## What are the current school schedules?

	<b>Masconomet Regional</b>	<b>Boxford Elementary</b>	<b>Middleton Elementary</b>	<b>Topsfield Elementary</b>
Sunrise	Latest twilight begins 6:43am on January 1-5, with latest sunrise at 7:14am.			
First bus picks up	6:25a	7:40a	7:30a	7:40a
School starts	7:35a	8:40a	8:30a	8:45a
School ends	2:15p	3:10p	3:00p	3:10p
Last bus drops off	3:10p	4:10p	4:00p	4:15p
Sunset	Earliest sunset is 4:10p on December 8-9, with twilight ending at 4:42p			

## Transportation

### How is transportation structured now?

Masconomet and our elementary schools share buses in order to save money. Buses run in two tiers, with buses picking up and delivering Masconomet students in the morning for a 7:35a start before picking up and delivering the elementary students for start times that vary by town (but range between 8:30a and 8:45a). Because we share buses, changes in Masconomet's schedule is likely to affect the schedule of our elementary schools.

### Some schools charge for busing, should we?

Masconomet cannot charge families for busing because it is a Regional School. Commonwealth law requires that Regional Schools provide free transportation for their students. The elementary schools could charge for busing, but only for students who live less than 2 miles from the school campuses they attend – those who live further away are entitled to free busing. It turns out that most elementary students across the towns live within 2 miles of the schools that they attend.

### What are our transportation goals?

Our goal for transportation has been to ensure that children have a safe ride to and from school, that as few children as possible wait for the bus in the dark (or get off the bus in the dark), and that we make cost-effective and efficient use of the buses. STAC would very much like to know how important the cost of these options is to the community as a factor in making its recommendation.

## Cost

### How much would changing school start times cost?

The cost of the proposed options ranges from zero to approximately \$1.7 million per year, the upper range of which would result in additional taxes to the average-priced household of up to \$225 in Boxford, \$168 in Middleton, and \$175 in Topsfield. Options that tweak the school schedules or swap the school start order have the lowest costs – a number of options have zero

cost. Options that add buses– ranging from three additional buses to a doubling of the bus fleet – have the higher costs.

## **Extra- and Co-Curricular Activities**

Any start time option that pushes the school end time later will have an impact on Extra- and Co-Curricular activities. The goal is to minimize the negative impacts on the students and staff who participate in all of these activities, and to realize positive impacts when possible. Schools that have changed their start times to 8:30a or later have reported that the effects on the athletics programs were less severe than they had anticipated. Furthermore, they point out that their athletics programs continue to thrive.

## **How would athletics change?**

Typically, athletics begin when Extra Help ends. We understand that participation in athletics is an important part of many of our students' high school experience. In the event that Masconomet chooses to end school later, the Masconomet Athletic Director will work with coaches and the representatives from schools that compete with Masconomet to adjust the day-to-day schedules, game schedules, and even the seasons (when possible) to achieve the necessary daylight and practice times for each athletic team, factoring in all of the interdependencies with other activities. Clearly the later the school end time, the greater the challenge, and some athletic programs could experience a decline in interest if schedules do not align.

The Masconomet Athletic Director has determined that a 10 minute shift (Options A, B, C) in school end time would have a minimal effect on the athletics schedules. However a shift of 45 minutes (Option E), 55 minutes (Option F), or 65 minutes (Option D) would have increasingly significant effects on the schedules. The Masconomet Athletic Director has estimated that, looking at the *current* athletic schedule, up to 81% of all games would experience scheduling conflicts with the 65-minute shift, affecting 12-250 high school students (1-21% of the high school student population) on any given day during an athletic season.

Masconomet would need to make arrangements for a new schedule of game dates, game durations, and/or for early release of students and the 23 teachers who coach Masconomet teams.

Athletic practice schedules would change with later school end times as well, with the greatest impact during late October and early November, when daylight becomes a restricting factor. Our athletes and coaches would need to become more creative in their strategies for training, preparing for games, and practicing.

## **How would Extra Help change at Masconomet?**

Extra Help is offered Monday-Thursday by the faculty to the students and is an opportunity for students to get help with homework, prepare for tests, and build relationships with the faculty. Extra- and Co-Curricular activities, such as athletics, academic competitions and clubs, cannot begin until Extra Help ends, currently at 2:52p.

Maintaining the integrity of Extra Help at Masconomet is an extremely high priority. In the event that Masconomet moves forward with a significantly later start and end time, the Administration and School Committee would need to work closely with the staff to ensure that

all students will be able to receive the same level of support that they do now. Ideally, this would take the form of the current Extra Help schedule, only shifted along with the school day, with special exceptions for students and staff members with occasional scheduling conflicts.

### **How would Clubs and Excels change at Masconomet?**

Clubs and the Excels program currently begin as Extra Help ends. Like Extra Help, Clubs and Excels are also a very high priority. While many of these activities do not face the same constraint of limited available daylight in the autumn, as athletics do, a later schedule would present a new burden on staff members who are integral to the success of these activities. In the event that Masconomet moves forward with a significantly later start and end time, the Administration and School Committee would need to work closely with the staff to ensure that Clubs and the Excels program can continue to receive the staff support that they need to continue in a meaningful way.

### **How would before- and after-school programs at the Elementary schools change?**

If the elementary schools move forward with significantly earlier start times, the Administration and School Committees would need to evaluate on a case-by-case basis whether to shift these programs earlier, or to shift them to occur after school. The earliest proposed elementary school start time is approximately 8:00a, which is 30-45 minutes earlier than the current elementary start times across the towns. Most before-school activities last approximately 35-45 minutes, which could allow them to be offered after school instead, resulting in an end time to the elementary school day that is nearly identical to the current schedule. Before-school activities that last longer may require special consideration – the Band programs last for about an hour before school, for example. The schools would consult with families and staff that participate in these longer programs to find workable solutions.

## **Family Considerations**

### **How would child care change at the elementary schools?**

It appears that morning child care offerings at the elementary schools would not need to change regardless of which start time option is chosen. An earlier elementary start time may mean some families no longer need morning child care, and there is likely to be greater need for after-school care, particularly if Masco-aged siblings (or neighbors) are no longer available to care for elementary-aged children. If the elementary schools shift to an earlier end time, they would pursue after-school child care offerings to meet our families needs, and charge only the cost of delivering those services, as they do now. In most cases, this would likely take the form of an expansion of the existing child care services. Nonetheless, we are aware of the near-capacity situation at Steward Station in Topsfield, so this would have to be addressed.

### **How are we supporting our staff as we consider making a change?**

We appreciate that our staff are fundamental to the success of our schools, and we continue to offer every member of our staff, across our four school districts, the opportunity to provide input and guidance on every aspect of this process. Our goal is to minimize negative disruption to the lives of our staff members in an equitable fashion, and ideally, to improve the quality of our

learning environment for everyone. That is why any significant changes would be delayed a year to allow all those impacted time to address.

### **What can families do to ensure their children get the best sleep possible?**

- Enforce consistent bedtimes across weeknights and weekends.
- Limit access to electronic devices at night.
- Have children avoid consumption of caffeine in the afternoons and evenings.
- Keep lights as dim as possible after dark.
- Evaluate the homework and extracurricular activity load on children to limit the impact on sleep.

### **How will the decision about which option to choose be made?**

The Start Times Advisory Committee (STAC) and the two Superintendents will make a recommendation to all four School Committees (Masconomet, Boxford Elementary, Middleton Elementary, and Topsfield Elementary) in late April 2017 for implementation in the 2018-19 school year. The School Committees will each vote on whether to adopt the recommendation, with approval from all four required for any change impacting both Masco and the elementary schools.

As mentioned earlier, our guiding principle throughout this process has been to work to provide the greatest benefit to the greatest number of students, while balancing that with the real-life concerns of our communities around cost, complexity, and change. Your input in the form of answering the Options Survey will provide the data that STAC needs to make an appropriate recommendation. If you feel that the Options Survey does not adequately capture your opinions, please contact STAC Chairperson [Bill Hodges](#), Masconomet Superintendent Dr. [Kevin Lyons](#), or Tri-Town Union Superintendent [Scott Morrison](#).

### **What other schools in our area are pursuing later start times for their adolescents?**

Masconomet participates in athletics with the Georgetown and Newburyport districts, both of which are pursuing later start times, and with Beverly, which has had later start times for the last seven years.

The schools of the entire Middlesex Athletic League have all committed to start times of 8:00a-8:30a starting in fall 2018 (although at this time it isn't clear how aggressively they are pursuing this):

- Arlington (8:00a in 2016-2017)
- Belmont
- Burlington
- Melrose
- Reading
- Stoneham
- Watertown
- Wilmington
- Winchester

These Massachusetts schools have made a change to later start times in the last several years:

- Amesbury (8:00a, 7:30a for extra help and co-curricular activities)
- Beverly (8:15a)
- Nauset (8:35a)
- Duxbury (8:20a)
- Marblehead (8:00a)
- Medway (8:04a)
- Sharon (8:05a)
- Hingham (8:00a)

These Massachusetts schools have made a change to later start times in 2016:

- Canton (8:00a)
- Easton (7:55a)
- Hanover (7:55a)
- Monomoy Regional (8:00a)

As of 2016, the following additional Massachusetts schools were pursuing later start times:

- Acton/Boxborough
- Ashland
- Barnstable
- Belmont
- Boston Public Schools
- Chesterfield
- Concord-Carlisle
- Dennis-Yarmouth
- Dover-Sherborn
- East Longmeadow
- Framingham
- Franklin
- Georgetown
- Kingston (Silver Lake Regional HS)
- Lenox
- Lincoln/Sudbury
- Mashpee
- Mendon/Upton Regional School District
- Natick
- Nashoba Regional HS
- Newburyport
- Newton
- North Andover
- Northborough-Southborough (Algonquin Regional HS)
- Northampton
- Reading
- Taunton
- Wayland

- Westborough
- Weston
- Winchester
- Worcester

Many other schools in New England and across the country have made changes or are pursuing changes to the start times of the schools that serve adolescents. Masconomet and the Tri-Town Elementary Schools are committed to devoting the appropriate time and resources to ensuring that any changes would be successful.

### **Who supports later school start times for adolescents?**

Locally, all of the pediatricians who are affiliated with Beverly Hospital have signed on in support of start times of 8:30a or later for adolescents, as do the Boxford and Middleton Boards of Health. At the state level, the Massachusetts Medical Society, Massachusetts Association of School Committees, numerous local Departments of Health, and many pediatricians and family physicians across the Commonwealth all call for 8:30a or later school start times for adolescents.

Nationally, the following professional organizations have spoken clearly on the scientifically based recommendations for later school start times for adolescents:

- The American Academy of Pediatrics
- The American Medical Association
- The United States Centers for Disease Control and Prevention (CDC)
- The Education Commission of the States
- The National Sleep Foundation
- The National Association of School Nurses and Society of Pediatric Nurses
- The American Psychological Association
- The American Sleep Association
- The American Academy of Child and Adolescent Psychiatry
- The American Thoracic Society
- The American Foundation for Suicide Prevention
- Former U.S. Secretary of Education Arne Duncan

### **What are the effects of adolescents not getting enough sleep?**

Chronic sleep deprivation is associated with a host of medical, mental health, safety, and behavioral issues. A sampling of a small fraction of the research:

- Increased disparity, wider achievement gap (Buckhalt, 2011; Jacob and Rockoff, 2011)
- Poorer academic performance, grade failure (Kahn et al, 1989; Wahlstrom, 2014)

- Poorer attention and problem solving (Gibson et al, 2006; Kilgore et al, 2007)
- Depression and anxiety (Bates, 2002; Chorney et al, 2008; Gibson et al, 2006; Kahn, 2006)
- Increased suicide and suicide ideation (Bernert and Joiner, 2007)
- Increased sports injuries (Milewski et al, 2012)
- Increased risk taking: violence, drug use, sexual activities, unsafe behaviors (O'Brien, 2005)
- Obesity (Mitchell et al, 2013; Must and Parisi, 2009; Taheri et al, 2004)
- Poorer dietary choices (Hale, 2013)
- Increased automobile accidents (Danner and Phillips, 2008; NCSDR, 1997; Wahlstrom, 2014)

### **What are the anticipated benefits of a later start time for Masconomet middle and high school students?**

- A reversal of some of the effects of adolescents not getting enough sleep, as mentioned above.
- Fewer sports-related injuries. Sports related injuries are 68% less likely for students who are not sleep deprived. Recovery from these injuries is faster as well (National Data).
- Fewer teen automotive accidents/fatalities. Teen automotive accidents/fatalities among teens have decreased by 60-70% in many communities with later high school start times (National Data).
- Fewer failing grades. Failing grades were down 50% in the first year at Nauset Regional High School, Eastham, MA.
- Lower absenteeism and tardiness rates. Absenteeism decreased 40%, and tardiness decreased 35% in the first year at Nauset Regional High School, Eastham, MA.

### **Why do elementary-aged and adolescent children have different sleep needs?**

From the onset of puberty through the early twenties, our bodies secrete melatonin – our own natural sleep hormone – later in the evening than in elementary-aged children and mature adults. The result for adolescents is that the physiological need to sleep – called sleep drive – occurs later at night and extends later into the morning. These temporary changes are the reason adolescents biologically cannot adapt well to early wake times, which can lead to chronic sleep loss and related health and safety concerns. Sleep is important because our brains cement the learning that occurs each day while we sleep, and it is the critical time when our brains remove the chemical byproducts of all the neural activity that build up over the course of the day.

Scientists have discovered that our brains undergo enormous change at two times in our lives: as we become toddlers, and as we transition from adolescence into adulthood. During these times,



the synapses in our brains are rearranging billions of connections – connections that are deeply affected by sleep. It is especially for this reason that scientists and medical experts stress the importance of letting adolescents sleep as much as they need.

Elementary-aged children are biologically programmed to be awake and alert earlier than adolescents, with melatonin secretion schedules aligning with mature adults. Based on this understanding, when making a change to school start times, some school districts choose to start the school day earlier at their elementary schools, while starting their middle and high schools later.

### What time does my child need to go to bed to get the recommended amount of sleep?

		WHAT TIME SHOULD YOU GO TO SLEEP?					
		Wake up Time					
		5:30AM	6:00AM	6:30AM	7:00AM	7:30AM	8:00AM
AGE	Avg Hours needed	Asleep In Bed Time					
6-11	10 hours	7:30 PM	8:00 PM	8:30 PM	9:00 PM	9:30 PM	10:00 PM
12	10 hours	7:30 PM	8:00 PM	8:30 PM	9:00 PM	9:30 PM	10:00 PM
13	10 hours	7:30 PM	8:00 PM	8:30 PM	9:00 PM	9:30 PM	10:00 PM
14-18	9 hours	8:30 PM	9:00 PM	9:30 PM	10:00 PM	10:30 PM	11:00 PM
19-25	8 hours	9:00 PM	10:00 PM	10:30 PM	11:00 PM	11:30 PM	12:00 AM

Individuals are likely to have difficulty both falling asleep during these hours and waking at the associated times in order to get the average amount of sleep needed due to their natural circadian rhythms. *Source: National Sleep Foundation, March 2015*

source: *National Sleep Foundation*

### Won't teens just stay up later if school starts later?

The research, which compares schools with different start times in neighboring school districts, finds that for most students, bedtimes remain the same on average. A small proportion of students do stay up later, but not by as much time as the shift in school start times. A teenager's bedtime is governed by his/her biology, whereas wake time is governed by the alarm clock.

Adolescent sleep deprivation is driven in large part by early wake times. In myriad studies of adolescents in schools where later school start times were enacted, adolescent bedtimes remained largely unchanged and total sleep time increased in relation to the later start of the school day.