

School Start Time Committee Report

A Report to the Barnstable School Committee

August 3, 2017



A report from the School Start Time Committee summarizing activity from November 2015 to August 2017.



Committee Members

Co-Chair Stephanie Ellis – School Committee member

Co-Chair Chris Joyce – School Committee member

Erica Aceto – BHS Parent

James Anderson – BIS Principal

Patrick Clark – BHS Principal

Sydney Crook – BHS Student

Andy Gauthier – BIS Teacher

Karen Gauthier – BHS Teacher

Michele Kjoller – WVE Teacher

Rhonda Lockwood – BIS Parent

Gareth Markwell – Deputy Director of Finance

Meg Mayo-Brown - Superintendent

Nora Monteiro – BUE Parent

Matt Scheufele – Centerville Principal

Scott Thomas – Athletic Director



Background

The American Academy of Pediatrics and American Medical Association recommend a later start time for adolescents, based on research indicating delayed start time improves academic outcomes, as well as attendance and tardiness. Additionally, delayed start time is associated with improvements in adolescent mood, health, decision-making, and safety. Accordingly, members of the Barnstable Public Schools community have been investigating the possibility of aligning the high school start time with recommendations from the medical field.

The effort to study school start time began in October of 2014 when Barnstable and Falmouth collaboratively led community workshops on high school start time. Panel presentations, comprised of educators, local pediatricians, and selected experts were held in each community. In April 2015, due to public interest, a forum titled "School Start Time: A Community Conversation" was held at Barnstable High School and 125 parents attended. Forum discussion included learning and health benefits of a later start time for high school students. The Barnstable High School public forum led to the formation of the Healthy Youth Task Force, a grassroots group of interested parents and health care employees. The Healthy Youth Task Force investigated research, reviewed literature and focused on the following themes: The Science of Sleep, Family Life and Child Care, Extra-curricular and Employment, Finance and Transportation and Recommendations/ Moving Forward.

As efforts continued to explore a later start time for high school students, Dr. Katie Rudman, Principal Patrick Clark, and other members of the Healthy Youth Task force presented the results of their findings at the October 2015 meeting of the Barnstable School Committee. Additionally, Tom Conrad, then Principal of Nauset High School, discussed the positive impact of school start time delay on attendance and achievement of Nauset High School students. At the next meeting of the Barnstable School Committee in November 2015, the Committee voted to establish a "special subcommittee" to study the possibility of modifying the start time for Barnstable High School students.

School Start Time Committee

As a result of the School Committee's establishment of a special subcommittee to study school start time, the first meeting of the School Start Time Committee was held on February 8, 2016. The group comprised of parents, teachers, administrators, students, and town officials, has met regularly to explore the tenets of a later start time for Barnstable High School students. The meeting dates and general topics of discussion are listed below.



February 8, 2016

The School Start Time Committee discussed their purpose and the task the School Committee set forth to them. They discussed the research found by the Barnstable High School Healthy Youth Task Force.

March 2, 2016

The School Start Time Committee discussed the financial implications of changing the high school start time, 2-tier bus system, elementary schools starting at the earlier time and the daycare issues if the high school and elementary schools switched start times.

April 27, 2016

The School Start Time Committee discussed the bus contract, 2-tier bus options, and switching the high school and elementary start times.

May 17, 2016

The School Start Time Committee discussed the options a 3-tier or 4-tier bus system and various start times at the different grade levels.

June 7, 2016

The School Start Time Committee discussed changing the preschool hours and BHS student concerns with a later start time. They spoke about combining the high school and middle school to be on the same buses.

July 12, 2016

The School Start Time Committee discussed various scenarios including 2-tier, 3-tier and 4-tier bus systems along with the cost associated with each scenario. They also spoke about the bussing requirements of private schools and the need to speak with the Town Manager and Recreation about after school programs.

September 12, 2016

The School Start Time Committee discussed the cost 2-tier vs. 3-tier bus systems, having two grade 4-7 buildings and hiring an outside consultant.

September 28, 2016

The Committee discussed various scenarios including combining BIS and BHS students on buses and having two grade 4-7 buildings. They spoke about the ridership of students on all buses.

December 21, 2016

The Committee discussed the MASBO Report on transportation with the consultants.



March 8, 2017

The Committee discussed their recommendations to the School Committee.

May 25, 2017

Co-Chair Ellis summarized the history of the Committee's meetings. The recommendations were presented at the May 3, 2017 School Committee Meeting and the Superintendent held two Community Forums on the topic to gather community input.

Exploring Models of Start Time

The School Start Time Committee, convinced of the benefits of a later start time for Barnstable High School students, began to consider various start time scenarios. A consideration within scenario development was transportation, given the school district provides transportation to students residing in over 60 square miles. The School Start Time Committee requested a transportation analysis in order to review the emerging scenarios drafted by the district's Transportation Department. The Superintendent contracted with the Massachusetts Association of School Business Officers (MASBO) and the Massachusetts Association of Pupil Transportation to review proposed transportation models. MASBO issued a report confirming the committee's eight scenarios and associated costs. Associated transportation costs for adjusting to a later start time for Barnstable High School ranged from \$340,000 to \$1,000,000. The increased cost was largely due to the need to move from a current three-tier transportation system to a two-tier transportation system. A two-tier system could keep all current school start times, while adjusting for a later high school start time. However, a two-tier transportation system would require more busses, therefore, resulting in an increased cost for transportation.

The School Start Time Committee reviewed the MASBO report, acknowledged the difficulty in funding for increased transportation costs, and opted to explore if alternative scenarios were feasible within the constraints of a three-tier model of transportation. As a result of additional exploration, the committee considered grade reconfiguration of two existing schools: Barnstable United Elementary School (BUES) and Barnstable Intermediate School (BIS). The grade reconfiguration to create two grade four through seven schools would allow for transportation to remain within a three-tier model. As detailed in the table below, costs for the new scenarios ranged from \$303,000 to \$708,000. Additionally, the committee determined the grade reconfiguration would reduce the number of transitions students are required to make K-12. Ultimately, as identified in the shaded row within the table, the committee decided to recommend a scenario that would keep current elementary start times, adjust the high school start time to 8:15, and reconfigure BIS and BUES to two 4-7 schools with start times of 7:20. This recommendation accomplished the goal of a later start time for Barnstable High



School, continued a three-tier transportation system, and reduced the number of transitions for students.

BellTimeScenarioslateststartcomm021017.xlsx

SCENARIO	DESCRIPTION	COST	NOTES
Two Tier (A)	BUE&ELEM Tier 1 @ 7:40-2:15 BHS&BIS Tier 2 @ 8:45-3:20	\$3,474,300.60	\$708,213.60 above contracted rate. Includes changing of buildings and grades with BIS and BHS riding same buses BUE and WV riding same buses. Also eliminates one transition. Need is 54 buses as cannot fit Sturgis in any tier, they will continue to have their own buses.
Two Tier (B)	Same as above except put HYW in Tier TWO	\$3,344,797.80	\$578,710.80 above contracted rate. Same as above except HYW would be in the other tier to reduce the total number of buses needed by two. Go from 54 to 52 buses.
Three Tier (A)	BUE&BIS Tier 1 @ 7:15-1:50 BHS Tier 2 @ 8:05-2:40 All Elem Tier 3 @ 8:50-3:25	\$3,069,603.00	*\$303,516.00 above contracted rate. Includes changing of buildings and grades, eliminates one transition and includes Sturgis. 47 Total Buses.
Three Tier (B)	All Elem Tier 1 @ 7:15-1:50 BUE&BIS Tier 2 @ 8:05-2:40 Tier 3 @ 8:50-3:25	BHS \$3,069,604.80	*\$303,517.80 above contracted rate. Includes changing of buildings and grades, eliminates one transition and includes Sturgis. 47 Total buses.
Three Tier (C)	BUE&BIS Tier 1 @ 7:20-1:50 BHS Tier 2 @ 8:15-2:50 All Elem Tier 3 @ 9:00-3:35	\$3,126,259.80	*\$360,172.80 above contracted rate. Includes changing of buildings and grades, eliminates one transition and includes Sturgis. 48 Total buses. Also gets older kids home in PM before young kids, better time if HS has job and keeps elem at same time with no change.
			*Cost of Sturgis buses (4) singles broken out is \$250,905.60 annually

Recommendations

On May 3, 2017 the Barnstable School Committee was presented with the recommendations from the School Start Time Committee. In conjunction with a revised high school start time, the School Start Time Committee made recommendations regarding the grade level spans and start times for Barnstable United Elementary School and Barnstable Intermediate School:

1. All elementary schools maintain current schedule, 9:00 – 3:35
2. Barnstable High School, adjust times to 8:15 – 2:50
3. Create two 4th – 7th grade schools at BIS and BUES, adjust times to 7:20 – 1:50

Community Forums and Feedback

In order to elicit feedback and input on the set of recommendations, the School Start Time Committee launched a “community conversation.” The Superintendent invited parents and members of the community to attend Community Forums on May 10, May 17 and June 19 to learn more about the recommendations, ask questions, and offer input. The goal of the forums was to collect and organize community feedback in order to report back to the Barnstable School Committee. In total, approximately 250 participants attended the three forums, including a number of participants who attended multiple forums. A survey was offered to participants of the forums to capture feedback. Additionally, an email address was created for electronic submission of



electronic feedback from the public, resulting in 84 emails. Themes from commentary and feedback provided during the forums, as well as email submissions are discussed below.

High School Start Time

In general, forum and electronic feedback regarding a later start time for Barnstable High School was somewhat split. Commentary included acknowledgement of recommendations from the American Academy of Pediatrics and American Medical Association, as well as findings by the Healthy Youth Task Force. However, some forum participants noted that the current start time seemed to be working well, that parents should be taking more of an active role in causing an earlier bedtime for teenagers, and adjusting start times would not prepare teenagers for the “real world.” The electronic survey provided to forum participants resulted in 50% of respondents disagreeing or strongly disagreeing with a later start time for Barnstable High School. However, 30% of email submissions advocated for a later start time for Barnstable High School students.

Conversion of Barnstable Intermediate School and Barnstable United Elementary School to Grades 4-7

The vast majority of commentary at the forums focused on the recommendation of creating two grades four through seven schools. Reaction was unfavorable and participants noted a number of concerns, including whether a 7:20 start time would be developmentally appropriate for adolescents attending the 4-7 schools. Additionally, concerns focused on earlier bus stops and school arrival for younger children, longer hours in school for children participating in daycare, and 4th and 7th grade students riding on the same bus and/or attending the same school. The electronic survey provided to forum participants resulted in 91% of respondents disagreeing or strongly disagreeing to an earlier start time for students in grades 4-7. Similarly, 81% of respondents disagreed with the grade reconfiguration. Email submissions were consistent with aforementioned areas of concern of forum participants.

General Concerns

Forum participants noted the need for additional funding to implement a later start time for high school students in order to preserve start times for all other students in the school system. Specifically, participants noted if there is a demonstrated need to adjust start times for high school students, then the School Committee and Town Council should simply identify funds. Participants asked whether or not an override could create additional necessary funding to create a two-tier transportation system. Moreover, forum participants were concerned about the impact of creating two 4-7 schools. Concerns in this regard ranged from financial equity, student demographics, initial transitions to a new grade reconfiguration model, and school choice. Forum participants identified a need to better understand the research base of combining students in grades 4-7, as well as the impact of a 7:20 start time on the age group.



Frequently Asked Questions

As a result of the community forums, email submissions, and phone calls to the Superintendent's office, recurring themes of questions emerged. The thematic questions and corresponding answers are identified below.

- 1. Why can't we move to a two-tier transportation system, so no one starts at 7:20?**
A two-tier transportation system causes a financial impact projected to cost between \$700,000 and \$1.5m. In order to fund an increase in transportation costs, the district would need to reallocate funds from the existing operating budget, resulting in a reduction within other areas of the budget.
- 2. What is the research on how earlier start times affects grades 4-7?**
A literature review reveals that adolescents (i.e., at the onset of puberty) benefit from a later school start time. Therefore, students attending grades 4-7 would also benefit from a later start time aligned with recommendations from the medical field.
- 3. After school programs cannot currently handle the amount of students. Will there be more spots for after school care? Will the cost go up?**
The district is currently reviewing options to expand after school programming. A Request for Proposals (RFP) was released in order to determine if expansion is possible. At this time information regarding cost is not yet available.
- 4. How did two 4-7 schools become part of the school start time conversation? What is the motivation for this change?**
As noted in the School Start Time Committee report, the concept of two 4-7 schools evolved from scenario development that sought to accomplish a later start time for Barnstable High School, reduce the number of transitions for students, and continue a three-tier transportation system. The recommendations do not save the district money; rather the recommendations create an additional expense.
- 5. Is it appropriate for 4th graders to be in school/on the bus with 7th graders?**
Administrators and transportation department staff members have discussed strategies for ridership. Strategies include assigned seating, establishment and monitoring of behavioral expectations, and bus monitors as necessary. In terms of students in grades 4-7 attending the same school, there are numerous models of K-8 schools throughout the state. Schools with broad grade configurations use physical space and various organizational strategies to create developmentally appropriate learning environments.
- 6. Why can't high school students just go to bed earlier?**
There is scientific research indicating biological causes for a different sleep-wake phase for adolescents, resulting in teens falling asleep later and waking up later. Due



to a circadian phase preference, adolescents have their highest level of alertness at 8pm, and it is even higher at 10pm. As a result, teens have difficulty falling asleep until after 11pm. Consistent with recommendations from the medical field, optimal sleep for adolescents is 8.5-9.5 hours per night; with a bedtime of 11pm and an 8am wake time.

7. **Why do we need to change anything? Can't we just keep things as they are?**

Our role as educators is to enhance the wellbeing of our students in areas where we have influence. There is compelling scientific and education research indicating that a later school start time is in the best interest of our adolescent students. Therefore, we are committed to exploring options where we can support the wellbeing of Barnstable students in accordance with recommendations from the American Academy of Pediatrics and American Medical Association.