

School Start Times

White Paper

Introduction

On November 29, 2017, Superintendent Colleen Palmer convened a working group for the purpose of exploring optimal school start times for all Westport Public School students. School Start Time Committee meetings were held monthly throughout the 2017-18 school year. **Appendix A** lists the committee members and their associated roles. On June 14, 2018, the committee recommended four possible school start time plans to the Superintendent. The committee reconvened in the fall to consider narrowing these possibilities to a single recommendation.

On October 18, 2018, the committee **recommended that all Westport K-12 public schools start no earlier than 8:00 a.m.** Rather than choosing to endorse a specific start time plan, the committee chose to make this recommendation due to the uncertainty surrounding Coleytown Middle School. More detailed considerations will be explored as the Board of Education makes decisions regarding short and long-term plans for the district's schools.

Mission and Guiding Principles

The committee convened with the following mission:

To review and study the impact of various school start times within the Westport Public Schools. The committee will consider the needs of and impact of various school start times on students, faculty, families, and the broader Westport community including budgetary and fiscal impact.

Recommendations should:

- Optimize the educational experience within the Westport Public Schools;
- Promote the health, academic performance, and quality of life for students, staff, and families; and
- Consider the needs of and impact on adjusting school start times for the broader Westport community.

As the committee developed recommendations, they considered the health of all of our students along with the logistical challenges that will need to be addressed in order to change school start times.

Discussion of Key Issues

Over the course of the meetings, two key questions guided our work:

- What does the research say about sleep and school start times?
- How would a change in school start times affect the school community and the wider Westport community?

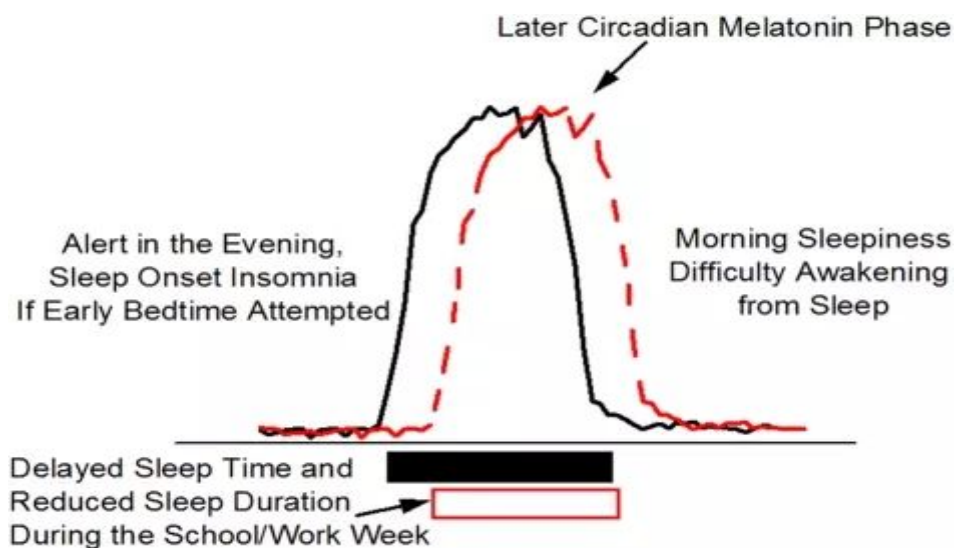
The committee made their recommendation based on research, presentations, and in-depth discussions regarding the pros and cons of changing school start times. As a committee, we found the science and data about adolescent sleep needs and school start time compelling. We also recognized the challenges that need to be addressed, both of which will be clarified in other segments of this paper.

Research Highlights

The American Medical Association, The Centers for Disease Control and Prevention, The American Academy of Child and Adolescent Psychiatry, The Society of Pediatric Nurses, the American Academy of Sleep Medicine, the Society of Behavioral Medicine, and the American Academy of Pediatrics, among other medical and educational organizations, all recommend healthy school start times and specifically that middle and high schools start class no earlier than 8:30 a.m. (**Appendix B**).

All pediatricians in Westport signed a letter stating that they agree with this recommendation and “view moving secondary school start times to 8:30 a.m. or later to be a practical and necessary public health measure” (**Appendix C**).

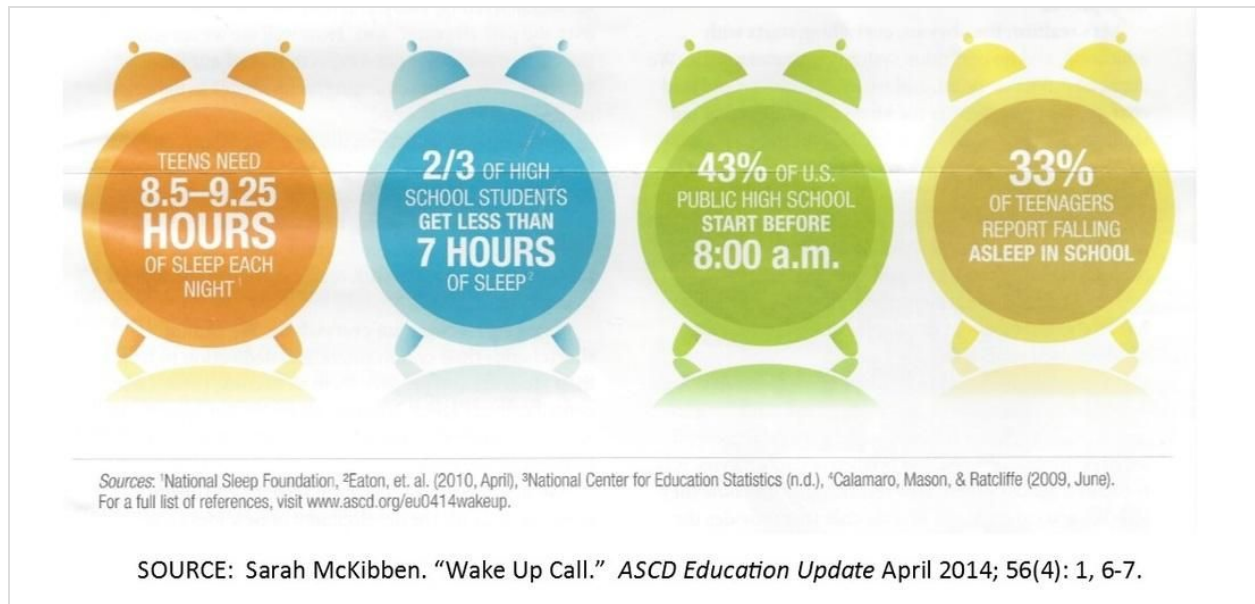
It is uncontroverted in the research community that students with later school start times get more sleep. Children’s sleep needs range from 8-11.5 hours per night depending on age and genetics. Given the neurobiologically induced shift in circadian rhythm that begins at the onset of puberty, it is beneficial for adolescent students to have a delayed start time. These biological changes are in direct conflict with earlier high school and middle school start times because adolescents are biologically programmed to wake at 8:00 am or later and get their best sleep between 11:00 p.m. and 8:00 a.m. The current early start times create a circadian misalignment for students who are adolescents as noted in the diagram below.



https://www.researchgate.net/figure/Delayed-Sleep-Phase-DSP-Delayed-sleep-phase-is-the-most-common-wakefulness-sleep_fig4_224821917

This consistent sleep deprivation creates a “social jet lag” associated with daytime sleepiness, poor academic performance, and depressed mood. Biological changes in adolescence are in direct

conflict with earlier high school start times because adolescents are biologically programmed to awaken at 8:00 a.m. or later. Early wake times selectively rob teens of REM sleep, which is critical for learning, memory, emotional resilience, and higher cognitive functions like abstract thinking and creativity. Based on the research, it is the belief of this committee that a later start time will improve attendance, decrease tardiness, improve academic performance and standardized test scores, and support the overall health, mental health and well being of students. (Dr. Judith Owens, School Start Times: Strategies Science, Oct. 16, 2018, Trinity College, Hartford, CT)



The following are bulleted statistics regarding adolescents and school start times (below stats taken from www.startschoollater.net except where otherwise noted):

- The average public high school in the U.S. starts at 7:59 a.m. (National Center for Educational Statistics (NCES), 2015-16 and NCES. 2011-12)
- More than half of licensed teens (56%) admit to having driven when feeling too tired to drive their best, and nearly one in 10 teens report that they have completely fallen asleep at the wheel. (SADD and Liberty Mutual Study, 2016)
- Insufficient sleep in teens is associated with obesity, migraines, and immune system disruption and with health risk behaviors including smoking, drinking, stimulant abuse, physical fighting, physical inactivity, depression, and suicidal tendencies.
- A major, multi-state study conducted by researchers at the University of Minnesota and the U.S. Centers for Disease Control and Prevention linked later high school start times to significant decreases in teen substance abuse.
- Switching middle school start times by 30 minutes or more to after 8 a.m. in Wake County, NC was associated with increased math and reading test scores.
- A study at the U.S. Air Force Academy showed first-year students starting classes after 8 a.m. performed better not only in their first classes but throughout the day.
- Sleep-deprived students work less productively and retain less information.
- Studies show that sleep significantly improves athletic performance and decreases the likelihood of injury. Students that sleep less than 8 hours per night are 68% more likely to get injured than athletes who sleep for 8 hours or more, and whether an adolescent gets

enough sleep has been found to be more of an influence over whether a student-athlete gets injured than hours of practice, number of sports played, strength training regimens, gender, or coaching styles.

<https://www.mnsleep.net/school-start-time-toolkit/why-improve-sleep-for-teenage-students/evidence-confirms-link-between-teen-sleep-biology-and-improved-outcomes/sports-related-injury-and-performance/>

- Bills to study, incentivize, or mandate healthy school start times have been introduced in at least 14 U.S. states--and so far at least 4 of them have passed.
- When schools have delayed the start of the school day, communities have seen reduced tardiness, sleeping in class, and car crash rates, as well as improved attendance, graduation rates, and standardized test scores
- With later school start times:
 - Bedtimes remain the same or in some students actually shift earlier
 - The later the school start times the greater the sleep amounts
 - Even a thirty minute delay results in improvements
 - Students with a later start time report less daytime sleepiness
 - Reduced car crash rates (CDC study 2014)

Implementation Challenges

The School Start Time Committee came together with varying opinions, but all participants recognized that establishing healthy school start times would come with challenges. Challenges to making this change were identified and possible solutions continue to be discussed.

- **Budgetary impact:** There are multiple ways to organize transportation needs to accommodate a delay in school start times. Maintaining the current bussing structure would have no budgetary impact. Changing to a two tier system would require an additional increase in transportation costs.
- **Transportation:** Parameters considered for students riding busses include bus ride time not to exceed sixty minutes and maintaining elementary aged students being picked up in the morning during daylight hours. School Bus Consultants (an outside organization) and Westport's Director of Transportation, Sandy Evangelista, spent a significant amount of time with the committee exploring bussing options and their feasibility. Major considerations included the time needed to effectively run bus tiers and the time that busses would arrive at bus stops, especially related to elementary students and civil twilight.
- **Athletics:** A later dismissal time at the HS would require additional travel time to away game sites which would likely impact the number of student athletes missing instructional minutes. In addition, fall outdoor team practice times may be compromised by the shortened daylight hours available after school. These concerns can be addressed through adjusting game start times whenever feasible and working with coaches to maximize practice time when there are fewer daylight hours.
- **Traffic patterns:** Concerns include the impact of traffic congestion in town with later start times. This will continue to be explored as more specific possibilities for start times at each school are developed.
- **After school community programs:** Outdoor programs using the same locations as after school programs may be impacted by later access to fields. For example, the delayed start time of school intramural programs would delay the start time of community programs that

use the same outdoor facility. Community programs would need to delay the start time of programming to meet the needs of students who have a later dismissal time and/or Westport's intramural programs would need to shorten their practices.

- **Shifts in daycare needs:** This will vary with individual families and will continue to be explored and considered.
- **Staff concerns:** Employee start and end times will be affected. This concern will vary with individuals and will continue to be explored and considered.

Other District Later Start Time Information:

- The average high school start time in the United States is 7:59 a.m. – 29 minutes later than the current start time of 7:30 a.m. at Staples High School.
- Several public schools in Fairfield County have implemented later start times for high school students, including:
 - Wilton High School (8:20 a.m.)
 - Greenwich High School (8:30 a.m.)
 - Newtown High School (8:00 a.m.)
- Several school districts in Westchester County have later start times for high school students as well, including:
 - In Scarsdale, Scarsdale Senior High School (8:00 a.m.) and Edgemont High School (8:30 a.m.)
 - Rye High School (8:00 a.m.)
 - Bronxville High School (8:30 a.m.)
 - In Chappaqua, Horace Greeley High School (6-day rotating schedule with 7:45 a.m. on 4 days and 8:45 a.m. on 2 days)

In addition, Danbury, New Canaan, Norwalk, and Ridgefield School Districts are actively discussing later secondary school start times. Scheduling challenges related to athletic and other after-school activities may decrease as more school districts implement this change.

Recommendation

After the depth of work done by the committee to explore and research sleep needs and school start times, as well as the logistical challenges that need to be considered, **the committee recommends that all Westport K-12 Public Schools start no earlier than 8:00 a.m.** More detailed considerations will be explored as information and decisions are released regarding the status of Coleytown Middle School.

References and Resources

All references and resources are included in Appendix C

Appendix A

School Start Time Committee Members:

Colleen Palmer, Ph.D.	Superintendent; Committee Co-Chair (2018-19)
Chris Wanner	Coordinator, Health and PE; Committee Co-Chair (2017-2019)
Mike Rizzo	Former Pupil Services Director; Committee Co-Chair (2017-18)
James D'Amico:	SHS Principal
Jackie Mellin	BMS Assistant Principal
Lauren Pitocco	CMS Assistant Principal
Chris Breyan	GFS Assistant Principal
Candace Savin	BOE
Vik Muktavaram	BOE
Christine Meiers Schatz	RTM; Parent; President, Sleep for Success
Ritu Johorey	Parent
Netta Levy	Parent
Eugenie Ten Cate	Parent
Anne Spencer	Parent
Carolyn Caney	Parent
Jackson Delgado	High School Student (2017-18)
Amanda Samuels	High School Student (2018-19)
Suzanne Levasseur	Supervisor, Health Services
Marty Lisevick	Athletic Director
Elio Longo	Chief Financial Officer
Sandy Evangelista	Transportation Director
Melissa Kane	Westport Third Selectwoman; Parent

Appendix B

Appendix C