

Start Time Committee Update

Canton School Committee

June 10, 2014

How we got started?

- While School Committee prompted a look at this issue, parents, staff and students were quick to share their thoughts on how a later start time would benefit high-school age students in Canton.
- At the same time, a number of area schools were moving towards later start times for their high schools.
- We put together a committee to investigate this idea and assess whether a change like this could take place in Canton.

Members of the Start Time Committee

- Jeffrey Granatino, Superintendent
- Derek Folan, CHS Principal
- Doug Dias, Former CHS Principal
- Bill Conard, GMS Principal
- Robie Peter, Luce Principal
- Ken Leon, Business Administrator
- Reuki Schutt, SC Member
- Cindy Thomas, SC Member
- Jolene Gilander, GMS Teacher
- Danny Erickson, CHS Teacher/Athletic Director
- Rebecca Ashley, CHS Teacher
- Katelyn Sweeney, Luce Teacher
- Lisa Goode, Luce Teacher
- Eileen Chaput, Parent
- Kristin Mirliani, Parent
- Helenann Civian, Parent

Goals/Mission

- Goal: Our overarching goal is to provide our students with the best possible educational situation.
- Question: Does the Canton Public Schools currently have start and end times that are optimal for student learning and academic success?
- Outcome: Recommendations on a start/end time that maximizes the effectiveness of teaching and learning at all levels.

Areas of Focus

- We met numerous times over the past 1.5 years.
- Researched and discussed the issues of teen sleep patterns and their impact on student learning.
- Communicated with other districts making changes to their start times and identified the pros/cons they experienced.
- Assessed current bus tier system and costs associated with expanding bus coverage.
- Surveyed parents, teacher and staff.
- Worked with Business Administrator Ken Leon and representatives from Connolly Bus company to assess transportation options.
- Developed various start-time schedules to assess feasibility.

Change is Needed

- Everyone who took part in this process feels strongly that some type of change to the start time, specifically for our High School age students is needed.
 - The question/problem- How is any type of change feasible under our current structure?

Sleep Information

- Polls through the National Sleep Foundation show that 60% of students under the age of 18 complained of being tired during the school day. 15% said they fell asleep (Sleep in America, 2002).
- Experts feel that high school age children need 8 ½ to 9 ¼ hours of sleep per night (Carskadon et al. 1980).
- “Over time, sleep deprivation leads to serious consequences for academic achievement, social behavior, and the health and safety of the nation’s youth” (Congressman Lofgren, 1999).
- 2002 National Sleep Foundation poll noted that 80% of respondents felt high schools should not open before 8:00 AM.
- “High school students slept an average of two fewer hours on school nights than they slept on weekend or on weekdays during the summer (Hansen et al. 2011).

Sleep Information

- Inadequate sleep can cause:
 - Reduced alertness
 - Drowsiness and fatigue
 - Lapse in attention
 - Concentration and problem-solving difficulties
 - Mood/emotional swings
 - Impulsive behavior
 - Irritability
 - Poor reaction times

Sleep Information

- Inadequate sleep can also cause:
 - Increased levels of anxiety
 - Driving accidents
 - Lower grades
 - Substance abuse
 - Tardiness/Attendance problems
 - Obesity and metabolism issues
 - Injuries
 - Depression
 - A lower self esteem

Multiple Sources, including the
National Sleep Foundation & Sharon
Public Schools

Sleep Information

- Because teenagers need eight to nine hours of sleep, waking up at 6 a.m. can lead to a pattern of sleep deprivation. And that puts them at higher risk of a whole range of potential problems, from depression to automobile accidents.

(NPR, 2013)

SAFETY

- In Fayette County, Ky., the number of car accidents caused by teenage drivers dropped almost 17 percent in the two years after the county pushed start times back an hour to 8:30 a.m. That compares with an 8 percent increase in crashes among 17- and 18-year-old drivers statewide over the same time. (Danner & Phillips 2008)

Impact on Learning

- Analysis done in North Carolina (Edwards, 2011) showed that students in schools that started later by an hour increased reading test scores by .03 to .10 standard deviations and math test scores by .06 to .09 standard deviations.

Impact on Learning

- Chicago study (Cortes, Bricker, et al...2009) noted students in schools that started at or before 8:00 AM were more commonly tardy. They are also absent six more days per year in the first period relative to other periods. Test scores were also dramatically lower in first period classes.

Impact on Learning

- US Air Force Academy Study- Freshmen (typically 18 years old) scheduled in classes 8:00 AM or earlier performed worse not only in their first class, but in all their classes, compared to students who started later (Carrell et al, 2011).

It's Biology

- Sleep scientists argue that early high school start times conflict with teens' shifting circadian rhythms. Beginning in puberty, "adolescents are programmed to fall asleep later (Owens, 2013).
- Teens see a 2-hour shift in times in which their bodies release melatonin, the hormone that causes sleepiness.
- As result, many teens to not feel sleepy until close to 11 PM but their body still needs 9 ¼ hours of sleep per night.
- Melatonin levels peak at roughly 7:00 AM for adolescents and at 4:00 AM for adults, so waking a teenager at 7:00 AM is similar to waking an adult at 4:00 AM.
- They should be asleep when their bodies want to be awake, and they are forced to be awake when their bodies want to be asleep (Carrell et al. 2011).

Comparison Data

- 50% of middle schools start before 8:00 AM (NCES, 2011).
- More than 50% of high schools start before 8:00 AM (Wolfson, Carskadon, 2005).
- 2% of undergraduate courses at University of Michigan started before 8:00 AM and close to 85% started after 9:30 AM (Hamilton Project, 2010).
- 30% of adults leave their houses for work after 8:00 AM (Bureau of Census, 2009).

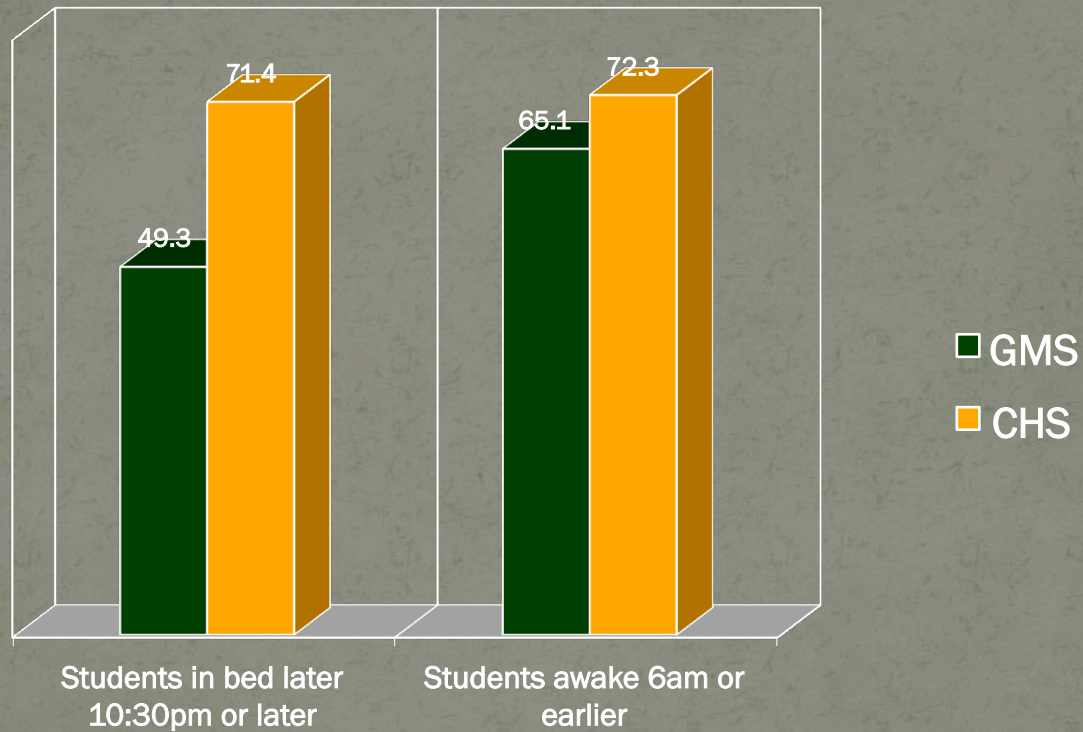
From ZZZ's to A's Frontline Video

- ZZZ's to A's

Survey Data

- 68.4% of CHS students 78% GMS students feel they need 8 or more hours of sleep each night.
- 90.7% of CHS parents and 69.1% of GMS parents responding felt their children need 8 or more hours of sleep.

Student Survey Results



Survey Data

- 89.1% of CHS students 83.6% of GMS students claim to be sleepy at some point during the school day.

Survey Data

- 12% of CHS parents rely on older siblings to watch younger ones.
- 14% of the GMS parents currently use after school care for their children.

Survey Data

- CHS & GMS students expressed concern on impact later start time would have on extracurricular activities, work, homework, social life and free time. The one area where a majority felt it would have a positive impact was on sleep.

Survey Data

- In most areas (work, transportation, child care, family life, afternoon activities), the majority of CHS parents noted a later start time would have no impact or a positive impact on them. A majority of GMS parents noted either no impact or a negative impact in these same areas if they went to a later start time.

Current Start Times

- CHS- 7:20 AM-1:44 PM
- GMS- 7:45 AM-2:05 PM
- Hansen- 8:25 AM-2:40 PM
- JFK- 8:25 AM-2:40 PM
- Luce- 8:55 AM-3:15 PM

Nearby Schools Who Have Moved to Later High School Start Time

- Sharon High School- 8:05 AM- 2:40 PM*
- Rockland High School- 8:00 AM- 2:35 PM
- Hingham High School- 8:00 AM- 2:32 PM*
- Duxbury High School- 8:20 AM-2:47 PM
- Needham High School- 8:00 AM- 2:35 PM*
- Medway High School- 8:04 AM- 2:31 PM*
- Bedford High School- 7:50 AM- 2:29 PM*
- Arlington High School- 8:00 AM- 2:26 PM

* *High School and Middle School flipped order of start times*

What We've Looked At

- Keeping things the same
- Flipping elementary schools to the first two tiers
- Keeping the same order of tiers but moving times back
- Flipping the middle school and high school tiers

Challenges to Major Changes

- **4-tiered bus system**- “Districts can reduce transportation costs by as much as 30% by using this system.” (Fugenschuh 2009; Keller and Muller 1979)
- **Timeframe for completing routes**- the later the start time in the morning, the later the children get home in the afternoon.
- **Cost of increasing # of buses**- Average cost of an additional bus is \$55,000
- **Earliest tier not an option for elementary**- If elementary students went to school first, they would be at bus stops between 6:30-7:00 AM.

Other Factors To Weigh

- After school clubs, activities, athletics
- Jobs
- After school help
- Babysitting/caring for younger siblings
- Impact on family life, schedule
- Parents work schedules
- Staff daycare/family needs

Possible Recommendations Assessed

- Based on information provided, the STC looked at two possible options:
 - Making a recommendation that only alters the start time at the high school and middle school, with modest changes to elementary times.
 - Making no recommendation for a change.

Initial Proposed Revision

School	Start Time	End Time
GMS	7:30 AM	1:50 PM
CHS	7:55 AM	2:19 PM
JFK	8:25 AM	2:40 PM
Hansen	8:25 AM	2:40 PM
Luce	8:55 AM	3:10 PM

Possible Change would...

- Start our oldest students 35 minutes later in the morning.
- Keep the 4-tiered system in place
- Keep the same number of buses in the district with no added cost.
- Allow the last elementary runs of the day to end at roughly the time they end now.
- Keep our youngest students from being out in the dark in the AM.
- Have minimal impact on after school activities/athletics at both GMS & CHS.

The Change Would

- Start the middle school 15 minutes earlier in the morning.
 - On average, the middle school buses start arriving at 7:20 AM that time would now be closer to 7:05 AM.
- Possibly cause certain afterschool events/games at distant locations to start a bit later at the high school.
- Slightly decrease the amount of time the bus company has between the start time for the 1st tier and 4th tier. (less flexibility)
- Have no impact on Tier 3 or 4 bus routes.

Problem Cited

- Number one concern that came forward was that our middle school students are also affected by the change in sleeping patterns and starting them 15 minutes earlier seemed to create a problem for these students, while solving one with the high school aged children.
- While some were in favor of this, there were a number of parents and a vast majority of the teachers concerned with this option.
- High school students would be getting to school in busier part of morning commute.
- Decrease in the time for the afternoon runs to be completed.

Additional Proposed Revision

School	Start Time	End Time
CHS	7:40 AM	2:04 PM
GMS	8:05 AM	2:25 PM
JFK	8:35 AM	2:50 PM
Hansen	8:35 AM	2:50 PM
Luce	9:05 AM	3:20 PM

Impact

- Minimal change for High School students, but a “start”.
- Kept same order of four tiers, with 20 minute shifts for CHS and GMS and 10 minute shifts for the two elementary tiers.
- BIGGEST ISSUE:
 - Time between start of 1st tier dismissal and 4th tier dismissal would go from 89 minutes to 76 minutes.
 - As it stands now, with a 3:15 dismissal time for the 4th tier, the last buses actually pull out of the Luce at between 3:30 -3:35. If we shifted times back 20 minutes, we would see the last buses leaving the Luce between 3:50-3:55 with some children arriving home after 4:15

One Additional Area to Assess

- Currently the Hansen and JFK arrive on the 3rd bus tier and the Luce joins up with St. Johns on the 4th bus tier.
- When these tiers were established, there was an understanding that these tiers may flip flop each year or every two years.
 - This has not happened since these tiers were established.
- The District may move in the direction of flip flopping these tiers to create a more equitable situation, for ALL families. These changes could take place every two years.

Moving Forward

- We will continue to look at how a shift in start times may be able to be made at our secondary level.
- The need for a shift is not in question, but how to make that shift work given our current systems is what needs to be looked at.

Next Step

- The School Department and School Committee will continue to assess the possibility of altering start times.
- At the June 10th SC Meeting, Chairman Thomas asked that a SC Subcommittee be convened to look further into the District's ability to change start times. That subcommittee will be established at the next SC meeting in July.

THANK YOU