

Later Start Times For Secondary Schools

Looking at the Impact on Transportation and Other Considerations

Why a Delayed Secondary Start Time

StartSchoolLater.net

StartSchoolLater.net

Workshop on Adolescent Sleep Health and School Start Times at Trinity College, Connecticut (key items learned)

The Science of Sleep and Myths

- Dr. Judith Owens MD, MPH Professor of Neurology, Harvard University
 - Myths
 - Teens would go to sleep earlier if parents just made them.
 - Take away phones, tablets, laptops, etc. and students will fall asleep faster.
 - If school starts later, students will just stay up later.
 - Teens can make up sleep on the weekends.

Sleep in Adolescents: Later Bedtime

- Dr. Judith Owens MD, MPH Professor of Neurology Harvard University
 - Teenagers:
 - Experience a normal shift in circadian rhythms with age and with the onset of puberty.
 - This results in a biologically based shift of up to several hours in both the natural fall asleep time and morning wake times.
 - It is almost impossible for teenagers to fall asleep much before 11:00pm.

Sleep in Adolescents: Later School Start Time

- Dr. Judith Owens MD, MPH Professor of Neurology Harvard University
 - Outcomes:
 - School Attendance improves
 - Tardiness rates drop
 - Drop-out rates decline
 - Grades improve
 - Fewer reports of depression

Workshop on Adolescent Sleep Health and School S Times at Trinity College, Connecticut

(key items learned)

-

Items to Consider

..... That may help or hinder transportation efficiency

Making a Delayed Secondary Start Time Coexist with Private Parochial School Schedules

- Private and Parochial Bell Times are established by their respective school administration.
- CBSD cannot assign starting and ending times for these schools.
- Under Pennsylvania School Code we must provide transportation that is equivalent to CBSD students (equivalent service not bell schedules).
- Majority of Private and Parochial Schools are transported over larger distances between 7:25am and 8:45am making it difficult to use these buses for other CBSD schools.
- Currently CBSD transports 1,477 non public students requiring 90 buses (old rule)
 - Some buses are able to transport CBSD and non public students together for efficiency

Countless Scenarios are Possible

We limited our focus to three basic scenarios

Three Broad Scenarios

- Scenario 1 - Adjust the CBSD High School and Middle School Starting Times from 7:25am to 8:30am. The Ending Time HS and MS Would be 3:30pm.
 - No change to the CBSD elementary schedules. 8:35am 3:45pm
- Scenario 2 - Adjust School Start and End Times to Keep Transportation Expenses Cost Neutral.
- Scenario 3 - Adjust CBSD Schools Start and End Times to Make Transportation more Efficient.

Scenario 1

- **Adjust CBSD High School and Middle School Starting Times from 7:25 to 8:30am**
 - Secondary schools ending time changes from 2:30 pm to 3:30pm
 - The secondary bell schedule becomes 8:30am to 3:30pm.
 - Elementary schools remain 8:35am to 3:45pm (time range for A, B, and C elementary schools)
- **Issues:**
 - Compacting and overlapping of the secondary and elementary schedules reduces efficiency.
 - This scenario mostly allows for one bus oneschool pick up and drop off . (single tier)
 - School buses can no longer deliver students to two or more schools each morning and afternoon.
 - Longer student ride times as buses are more frequently competing with rush hour traffic.
 - HS and MS students may need to miss more class time to meet band and sports competition schedule
- **Impact:**
 - Not enough buses and drivers to transport students to and from school within the time constraints.
 - Conservative estimates are for 140+ additional buses to meet the above schedule.
 - Major decrease in transportation efficiency and increase in overhead costs.
- **Outcome:**
 - Need for more school buses, school bus drivers, and aides.
 - Need additional parking for school buses, bus driver cars, and bus aide cars.

Scenario 2

- **Adjust the School Start and End Times to Make Transportation Cost Neutral.**

- Middle school times change from 7:25am to 2:30pm to become 7:30am to 2:35pm.
- High school times change from 7:25am to 2:30pm to become 8:20am to 3:20pm.
- Elementary schools:
 - Tier A elementary schools change from 8:35am to 3:15pm to become 9:15am to 3:55pm.
 - Tier B elementary schools change from 8:50am to 3:30pm to become 9:30am to 4:10pm.
 -

Scenario 3

• Adjust School Start and End Times to Make Transportation More Efficient.

- Middle school times change from 7:25am to 2:30pm to become 7:15am to 2:15pm.
- High school times change from 7:25am to 2:30pm to become 8:00am to 3:05pm.
- Elementary schools:
 - Tier A elementary schools change from 8:35am to 3:15pm to become 9:15am to 3:55pm.
 - Tier B elementary schools change from 8:50am to 3:30pm to become 9:35am to 4:15pm.
 - Tier C elementary schools schedules are eliminated.

• Issues:

- Middle schools start a little earlier.
- High schools start 35 minutes later
- Tier B elem. schools dismissed 45 minutes later. Students getting home in the winter time with less daylight.
- HS students may need to miss more class time to meet band and sports competition schedules.

• Impact:

- Better bell schedule spacing between schools makes transportation more efficient.
- Easier to transport middle school 9th grade athletes to high school practices on time.
- Increase in driver hours and miles driven.
- Need more substitute bus drivers to meet demands for sports and field trips.

• Outcome:

- Potential savings of 7 to 10 school buses.
- Helps alleviate the bus driver shortage.
- May need to make some of the later elementary bus stops individual stops due to daylight concerns.

Scenario Summary

Scenario	Description	Level	Start Time	End Time
Current	CBSD current bell schedule	High School Middle School Elementary School	7:25 am 7:25 am A 8:35am / B 8:50am / C 9:05am	2:30 pm / 9:05 am

Why can't we Just

- Move the Entire District Building Start Times ½ Hour or One Hour Later?
 - Conflict with private and parochial schools bell times. Similar to scenario 1 and the need for many more buses.
 - Heavier prime time traffic creating longer bus rides and expanded routes in the a.m. and p.m.
 - Elementary last stop times would move to well after 5:00 p.m. with associated diminished daylight issues in the winter.
 - Need for more substitute bus drivers for sports trips and field trips.

Why can't we Just

- Have Elementary Schools Start Before the Secondary Schools
 - This was an option recommended by the Education Review of CBSD data.
 - It was not considered as parents like to have older high school/middle school siblings arrive home first to potentially baby sit younger elementary age students.
 - Younger students may need to wait for the morning bus in darker conditions from December through February.

Feedback Received from Edulog

- The district contracted with Edulog \$3,000, to review the data in our transportation routing software database.
- Edulog found our routing data to be extremely reliable, with no issues found
 - There were no proposed bus runs with distance or time calculation errors.
 - Student address matching is approximately 99% which is a very good indicator data management.
 - Negative bus schedule slack is 44 out of 1,292 bus runs or over 96% which is a good indicator of timely scheduling.
 - Bus run directions are in good order.

Other Broad Feedback Received from Edulog

- Edulog

The Estimated Financial Impact

Scenarios 1, 2, and 3

Questions ??