

Syosset High School Start Time Discussion

Overview of Research

- Two research methodologies: Medical and Social Science
- Medical research focuses on developmental factors as an explanation for changes in youth's sleep, specifically the decline in melatonin in puberty.
- Social Scientists have demonstrated that one's social relations (parents, friends etc.) determines health – related patterns including sleep patterns.

Overview of Medical Research

Journal of Adolescent Health
Dahl and Lewin

- Transition from childhood into adolescence systematically alters sleep in the following ways:
 - Decrease in duration of non-REM and REM sleep.
 - Shift in the circadian pattern: tendency for later bedtimes and wake up times.
 - Increase in daytime sleepiness (first hour significant).

Overview of Medical Research

National Sleep Foundation

- Widespread adolescent sleep deprivation driven by a conflict between teen's internal biological clocks and the schedules and demands of society.
- Optimal levels of sleep for adolescents is 8.5 – 9.5 hours.

Overview of Medical Research

Pathways to Adolescent Health: Sleep Regulation and Behavior

- An increased prevalence of anxiety and mood disorders have been linked to poor quality and insufficient sleep in adolescents.
- Results in reduced concentration, performance, attention, productivity, creativity, communication and socialization.
- Aligning education times with student's circadian rhythms may improve learning and reduce health risks.

Overview of Medical Research

School Start Times American Academy of Pediatrics
Journal of School Health

- Delaying school start times after 8 am not only results in a substantive increase in average sleep duration but also has a significant positive effect on a variety of key outcomes:
 - Decreased self reported sleepiness and fatigue
 - Improvement in academic measures
 - Attendance

Most U.S. middle and high schools start the school day too early



5 out of 6 U.S. middle and high schools start the school day before **8:30 AM**

The American Academy of Pediatrics has recommended that middle and high schools should aim to start no earlier than 8:30 AM to enable students to get adequate sleep.



Teens need at least **8** hours of sleep per night.



Younger students need at least **9** hours.



2 out of **3** U.S. high school students sleep less than **8 hours** on school nights

Adolescents who do not get enough sleep are more likely to



be overweight



not get enough physical activity



suffer from depressive symptoms



engage in unhealthy risk behaviors such as drinking alcohol, smoking tobacco, and using illicit drugs



perform poorly in school

For more information: www.cdc.gov

Overview of Social Science Research

Social Ties and Adolescent Sleep Disruption
Journal of Health and Social Behavior

- Social determinates of sleep are more important predictors of changes in sleep patterns than developmental measures.
- Healthier sleep patterns correlated with strong social ties such as when students feel part of the schools they attend and/or are surrounded by academically oriented and prosocial friends.
- Increasing attachment to school as youths enter HS is significantly related to lower levels of sleep disruption.

Overview of Social Science Research

Social Ties and Adolescent Sleep Disruption
Journal of Health and Social Behavior

- Parents setting ground rules including a reasonable bed time are among the most important determinants of promoting healthy sleep behaviors.
- Teens acknowledge that parents are their primary and most influential source of information and guidance on the importance of and the need to get adequate sleep.
- Strong feelings of love and acceptance in one's social circles will create a sense of safety that is conducive to healthy sleep.

Summary of Research

School Start Times and Student Outcomes
Hanover Research 2016

- By the Numbers:
 - Evidence that school start times impact adolescent academic achievement remains inconclusive.
 - Delayed start times may decrease tardiness, the effect on attendance rates appears uncertain.
- Summary:
 - All studies conclude that more sleep is better.
 - Studies differ in recommendations: Medical advocates for later start: Social advocates for intentional social connections.

Data from Neighboring Districts

<u>Jericho</u>		<u>Plainview-Old Bethpage</u>		<u>Westbury</u>	
Elementary	8:25 -2:55	Grades K- 4 Schools	9:20-3:20	Drexel, Park and Powells Elementary	9:00-3:00
Middle School	7:26-2:45	Middle Schools	8:40-2:50	Dryden Elementary	9:30-3:30
High School	8:59 -3:31	High School	7:25-1:49	Middle School	7:35-2:05
				High School	8:00 -2:30

<u>Oyster Bay</u>		<u>Massapequa</u>		<u>Cold Spring Harbor</u>	
Elementary (K-2)	9:05-3:05	John McKenna Elementary	8:25-2:30	Primary (K-1)	8:30-3:00
James Vernon School (3-6)	8:25-2:45	East Lake Elementary	8:30-2:45	Elementary (2-6)	8:50-3:10
Oyster Bay High School (7-12)	7:50-2:16	Raymond Lockhart Elementary	8:40-2:55	CSH Junior/High School (7-12)	7:45-2:25
		Birch , Fairfield and Unqua Elementary	9:15-3:30		
		Middle School (7&8)	8:02-2:55		
		High School Ames (9th only)	7:25-2:18		
		High School Main (10-12)	7:30-2:25		

Bell Schedules Jericho vs. Syosset


Jericho	Period 1	Period 2	Period 3	Period 4
	7:31-8:11	8:15-8:54	8:59-9:39	9:43-10:23
	Clubs	Clubs	Bell schedule starts	
Syosset	Period 1	Period 2	Period 3	Period 4
	7:39-8:19	8:27-9:07	9:12-9:52	9:57-10:37
	Bell schedule starts			

Bell Schedules Jericho vs. Syosset

Jericho	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Period 11
	10:27-11:07	11:11-11:51	11:55-12:35	12:39-1:19	1:23-2:03	2:07-2:47	2:51-3:31

Syosset	Period 5	Period 6	Period 7	Period 8	Period 9	After school activities: clubs, extra help, athletics
	10:42-11:22	11:27-12:07	12:12-12:52	12:57-1:37	1:41-2:21	

Current Logistical Factors for Consideration

- Academic achievement
 - Athletics
 - Co-curricular activities
 - External scheduling considerations for students
 - Transportation for all students
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Academic Achievement

SHS Academic Profile for the class of 2016: 531 students

- ❖ 99 % of the graduating class will pursue full-time education
- ❖ 93% - four year colleges, 5% - two year colleges and 1% career education
 - Regents Diplomas: 523 students (98%)
 - National Merit Letters of National Merit Finalists: 13 students
 - Commendation: 33 students
 - Breaking News: Blue Ribbon Designation!

Athletics: High School and Middle Schools

- SHS: 57 athletic teams: 3 seasons
- Practice begins at 2:30 : 2 hour duration

- Middle schools: 63 athletic teams: 4 seasons
- Practice begins at 3:15: 2 hour duration

- Section 8 home competition begin between 4:15 and 5:00
- Away competition begins between 4:30 and 5:00: Buses leave at 3:15.

Athletics: High School and Middle Schools

- Facilities Usage
- Sports teams get first preference in our facilities. Community groups are scheduled from the end of practice to 9 pm. Community groups' schedules may have to be shortened to accommodate a later end to practices.

Co-curricular Activities

Clubs and Groups at SHS:

- There are 60 clubs and 30 groups at SHS
- Clubs and groups meet after school, starting at 2:30 pm

Competitions:

- Interscholastic competitions i.e. Mock Trial, Quiz Bowl, Chess Club, Mathletes, and Forensics. Competitions begin at 4:00 or 4:30pm. Competing teams travel to the host school

Extra help sessions:

- Extra help sessions are offered both before and after school

Events:

- The district hosts events for other schools. This includes events such as the NMEA all county rehearsals and NYSSMA evaluations.

Other partners in education for Syosset

- Outside placements for students
 - Barry Tech or other BOCES programs, run according to their own schedule. At the present time, students start at either 7:40 am or 11:30 am.
 - Work Based Learning: The students in this program require job coaches, who are certified teaching assistants. The hours for these are determined by cooperating businesses and staff members.

Additional factors for consideration

- After School Employment
 - Currently these hours of work begin at 3pm.

- Child Care Responsibilities
 - Some High School students act as “care providers” for younger siblings and may be expected to meet the elementary or middle school bus.

Transportation - Current

	<u>Elem</u>	<u>MS</u>	<u>HS</u>
Start Time	9:10	7:55	7:25
Bus Dismissal	3:15	2:55	2:25
Early Morning	8:30	n/a	n/a
<i>Buses do complete elementary runs (sweep)</i>			

Transportation

Number of buses and vans used for regular district routes

	Elementary	Middle School	High School
Buses	53	44	46
Vans	17	10	12

Possible Configurations

Bus Run Sequence	Current	Change to HS Only		Changes to Other Schools			
		MS	HS	ES	ES	MS	MS
1	HS	MS	HS	ES	ES	MS	MS
2	MS	ES		MS	HS	HS	ES
3	ES			HS	MS	ES	HS

Transportation – Change to HS Only




 Only HS is Impacted

 Highest Cost

Rough estimate of cost to complete HS runs based on no other modifications

	Annual \$ Per Vehicle	# of Vehicles	Cost
Five hour buses	72,012	46	3,312,534
Vans	47,283	12	567,400
Total			3,879,933

Transportation – Changes to Other Schools

-  **Less cost impact**
-  **Greater student impact**
-  **Additional considerations would be based on actual start times and dismissal times**

General Transportation Considerations

- Cost Impact
- Impact of change in sequence of student arrival times
Example: Younger siblings arriving home before older siblings
- Impact on non-public runs (27 Vans have Syosset CSD routes integrated with private school runs)
- Contractual/Bidding Impact

Community Feedback

Focus Groups: Facilitator and Scribe

- I used to think.... Now I think.....
- Top 3 concerns
- Top 3 priorities

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