

Frequently Asked Questions on School Start Times

Evidence from extensive research suggests that adolescents need between 8 to 10 hours of sleep each night in order to maintain sustainable levels of mental and physical health. [11](#) Due to biological changes during puberty, adolescents experience a shift in sleep initiation, and it is difficult for them to maintain their former sleep pattern. Consequently, changing school start times should be considered to maintain and enhance the health and well-being of adolescents.

1. Why should high schools and middle schools start at 8:30am or later?

The purpose of changing school start times is to align the school schedule with the natural sleep rhythm of teenagers, allowing for improved sleep duration and quality. This improvement in sleep will translate to improvements in education, physical and mental health. As adolescents enter puberty, there is a natural shift in the release of a hormone called melatonin which dictates their sleep patterns. This shift delays their sleep onset and natural wake up time, making it more difficult for them to go to sleep early and wake up early and is the primary reason why it is biologically difficult for adolescents to wake up early for school and still get the recommended 8-10 hours of sleep. Enacting policy change to shift school start times to match the circadian rhythm during the teenage years would help to significantly improve adolescent health. [2_4](#)

2. It has been efficiently working for years so what is the need for the change now?

There was a big push to move schools to an earlier time in the 1970's and 1980's due to transportation considerations, as districts became larger. Before this time period, schools were beginning at a later time, but this new idea was pushed forward as a cost-saving method for towns who needed more transportation. Towns create a tiered busing system to use less busses and drivers. Since the 1990's however, data has shown that this earlier shift has had deleterious consequences on adolescent education, mental and physical health without any educational benefit to the students. [_8](#)

3. What are the health effects of adolescents not getting enough sleep?

Inadequate sleep can result in some of the following mental health, physical health, and transportation safety concerns:

Suicide	<i>Inadequate sleep and daytime sleepiness correlates with increasing suicidality. 1 (Liu- Sleep – Feb 2019)</i>
Drowsy Driving	<i>Poor sleep-in adolescents can result in an increase in motor vehicle crashes thus putting an increased risk of harm to themselves along with the civilians around them. _5</i>
Depression and anxiety	<i>Lack of sleep has been correlated with an increase in depression and anxiety because sleep directly impacts mood and behaviors in adolescents. 3</i>
Overweight/Obesity	<i>Getting fewer hours of sleep has been correlated with an increase in average BMI in teens thus making a lack of sleep contributor to obesity in adolescents. 10</i>
Worse academic performance	<i>Poor sleep habits are associated with worse academic performance in many research studies which have been conducted on teens. 15</i>
Engagement in risky behaviors	<i>Lack of sleep-in teens is associated with participation in risky activities such as using drugs and other substances. 16</i>
Increase in bullying and violence	<i>Students with a lack of sleep have a higher tendency to engage in violent behavior on school grounds. 7</i>

4. How will moving school start times affect the sports programs in the district?

Schools have a variety of ways to mitigate any impact of delayed school start times on sports. First, delaying school start times does not automatically mean delaying the school end time by the same amount of time. Districts can find ways to shave off unnecessary minutes out of the school day, by analyzing their school schedule. Some districts have found that they could delay schools by 55 minutes, but only end 37 minutes later. (Radnor)

Practice schedules are often not impacted by delayed school times, but schools can also analyze sports practices to make them more efficient, encouraging practices to be limited to 90 to 120 minutes. Games between districts can be coordinated with adjusted game times allowing the opposing team time to travel. When possible, schools can have multiple games occurring simultaneously, allowing Freshman, JV and Varsity teams to finish at the same time. [12](#)

There are also multiple studies that show that adequate sleep can improve athletic performance and decrease sports injuries. These benefits are seen at even the highest levels of sports, including professional sports. Delaying school start times and allowing adolescent athletes more sleep is a core component to their athletic success.

5. Does starting school later affect academic success?

Starting school later has a positive impact on the academic success of students. There have been many studies done to indicate that more sleep and higher test scores are directly correlated with each other.

Here are a few examples of this phenomenon:

- A Seattle School District delayed the start of school by an hour and did a pre- and post-research study to see how sleep impacts performance in school. It was noted that an average increase of 34 minutes of sleep is associated with a 4.5% increase in average grades along with an improvement in attendance. [6](#)
- In a study conducted by the Children's National Medical Center's Division of Sleep Medicine Research Team, they investigated the correlation of a later school start time and graduation rates and attendance rates amongst 30,000 high school students from 29 schools. They found out that the average graduation rate after the delay went from 79% to 88% and the average attendance rate went from 90% to 94%. [9](#)

6. Wouldn't this change give adolescents the ability to just stay up later?

Research has indicated that when schools delay school start times, there is a direct correlation with increased sleep in the adolescents. Data published by the American Academy of Sleep and Medicine indicated that a delayed school start time ranging from 50-70 mins in middle schools and high schools resulted in students reporting sleeping an additional 31-48 minutes.

Education about the importance of sleep to both teenagers and their families is an important aspect of any effort to improve adolescent sleep, but even without this education, policy change is extremely effective at improving sleep.

7. What is the financial cost to moving to a later school start time? How will bus routes be affected?

The only costs that might be associated with changing school start times are the potential costs of a change in transportation (more buses or bus drivers). However, many districts have been able to successfully implement changes in school start times without incurring any significant costs. Some districts have kept their bus tiering systems, but have been efficient in decreasing route times, allowing for a delay in the start times of the 1st tier. Transportation can be analyzed to find more efficient routes or ways to minimize cost and disruption. For any individual district, there is almost always a cost-neutral or minimal cost solution. We encourage all districts to consider a transportation analysis to see what can be easily achieved at minimal cost.

As a society, there are financial benefits as well. A study using a macroeconomic modelling approach resulted in data which suggested that the benefits of starting school later outweigh the immediate costs and after two years, there is an economic gain to the U.S economy. When looking at the long-term effects, the monetary cost at front definitely outweighs the costs of the detrimental impact coming from current school start times. [14](#)

8. How will this affect those students who work after school?

Students who have work after school will in fact benefit from this potential change because working students typically do not end work until later at night. Therefore, getting an extra few extra minutes or hour of sleep will be

tremendously beneficial to them. Along with this, employers do not typically hire employees for the middle of the day therefore a lot of their jobs start in the early evening hours.

9. How does this impact low-income students?

Low-income students benefit from this change as much, if not more, than other students who are not impacted by social determinants of health. The myriad of benefits that occur with improved sleep are only enhanced when other negative social determinants of health are present. Districts that have been traditionally lower performing in academics compared to their peers have seen a more significant academic impact from school start time changes than high performing districts, though both types of districts showed statistical improvement. Students who have negative SDH are at increased risk for mental health issues and obesity, both of which are improved with adequate sleep.

10. Are there any school districts in New Jersey considering changing school start times?

There are many school districts who are considering this change and there are also some school districts who have already made this change. Schools in Tenafly, Burlington and Princeton have already made this change, among others. Schools in Bridgewater, Ridgewood, Montgomery and more are considering making this change in the near future. To learn more on how to get your school involved visit the [start school later](#) website.

11. Where can I get more information regarding this topic?

- [Center of Disease Control and Prevention](#)
- [American Medical Association](#)
- [American Academy of Pediatrics](#)
- [The National Sleep Foundation](#)
- [New Jersey Chapter, American Academy of Pediatrics](#)
- [Start School Later](#)

If you have additional questions or concerns, please contact our Task Force on Adolescent Sleep and School Start Times at SchoolStartTimes@njaap.org.

Thank you!

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