



Why is Central Bucks School District Exploring Later Start Times?

Expert Recommendations:
The American Academy of Pediatrics & American Academy of Sleep Medicine advise:

- Adolescents should get around **8.5 to 9.5 hours of sleep** per night.
- Research supports that adolescents are naturally inclined to go to bed later and sleep later in the morning.
- Middle and high schools should start **no earlier than 8:30 AM.**

Teens often need more sleep than they get.

- Just **25%** of high school students report getting **8 or more hours** of sleep per night.
- When schools start later, students use the time to get more sleep. Students typically **sleep 25 to 77 minutes more** per night when school starts 25 to 60 minutes later.

Sleep can affect academic performance.

- Later school start times & more sleep can improve students' **attention**, reduce **sleepiness**, and decrease the likelihood of **students falling asleep in class.**
- Students' test scores and grades usually **stay the same or increase** when schools start later.

Sleep can affect health and behavior.

- More sleep can reduce rates of **depression and anxiety.**
- Teens are less likely to be in **vehicle crashes** when schools start later.
- Schools have often seen reduced **tardiness and absences** when schools start later.

CBSD Current Schedule			Sample Schedules From Districts That Have Changed School Start Times					
CURRENT: Central Bucks School District			SPOTLIGHT: Cherry Creek Schools (CO)			SPOTLIGHT: South Lake Schools (MI)		
High schools start at 7:25 AM.			High schools start at 8:20 AM.			High schools start at 8:35 AM.		
SCHOOLS	START	END	SCHOOLS	START	END	SCHOOLS	START	END
High School	7:25 AM	2:30 PM	High School	8:20 AM	3:30 PM	High School	8:35 AM	3:35 PM
Middle School	7:30 AM	2:30 PM	Junior High	8:50 AM	3:45 PM	Junior High	7:45 AM	2:45 PM
Elementary	8:35 AM	3:15 PM	Elementary (all)	8:00 AM	2:45 PM	Elementary (all)	8:10 AM	3:10 PM
	8:50 AM	3:30 PM						
	9:05 AM	3:45 PM						

Logistical Considerations

There are a number of fiscal and logistical considerations that the school district and community must examine before changing start times. These include the scheduling of afterschool activities and athletics, transportation routes and bus schedules, and family needs surrounding child care for younger siblings.

Athletics & Extracurriculars

- Later start times could benefit student athletes, as more sleep boosts athletic performance.
- However, later start times may also pose challenges in terms of coordinating academic and athletic or extracurricular schedules and allowing students to attend away events.

Transportation & Child Care

- Districts that have changed high school start times report that creating an acceptable bus schedule that accommodates families' needs can be challenging, and often makes mean earlier start times and dismissal times for elementary school students.
- Alternative options may include bussing students from different school levels at the same time.

Fiscal Impact

- The largest cost to schools when changing school start times is transportation. Based on how start times are staggered in the morning, a change in start times may result in higher costs to run more buses at the same time.
- In contrast, an analysis by RAND Corporation finds that delaying start times could result in long-term, population-level cost savings due to its positive impact on student performance and public health.

Sources :[1] American Academy of Pediatrics. <http://pediatrics.aappublications.org/content/pediatrics/early/2014/08/19/peds.2014-1697.full.pdf> [2] American Academy of Sleep Medicine. <https://aasm.org/resources/pdf/pediatricsleepdurationconsensus.pdf> [3] Bowers, J.M. and Moyer, A. [https://www.sleephealthjournal.org/article/S2352-7218\(17\)30154-7/fulltext](https://www.sleephealthjournal.org/article/S2352-7218(17)30154-7/fulltext) [4] Centers for Disease Control and Prevention. <https://www.cdc.gov/healthyouth/data/yrbps/pdf/2017/ss6708.pdf> [5] Marx, R., et. al. <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009467.pub2/full> [6] Minges, K.E. and Redeker, N.S. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4844764/> [7] Morgenthaler, T.I., et. al. <https://pdfs.semanticscholar.org/4c25/837e2461821bb75f91c3a72ee6e0d0865f17.pdf> [8] Wheaton, A.G., Chapman, D.P., and Croft, J.B. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4824552/> [9] Peltz, J.S., Rogge, R.D., Connolly, H., and O'Connor, T.G. [https://www.sleephealthjournal.org/article/S2352-7218\(17\)30153-5/fulltext](https://www.sleephealthjournal.org/article/S2352-7218(17)30153-5/fulltext) [10] Panoni, A. "Later High School Start Times a Challenge for Districts." *U.S. News & World Report*, March 24, 2014. <https://www.usnews.com/education/blogs/high-school-notes/2014/03/24/late-high-school-start-times-a-challenge-for-districts> [10] Hafner, M., Stepanek, M., and Troxel, W. "Later school start times in the U.S.: an economic analysis." RAND Corporation, 2017. https://www.rand.org/pubs/research_reports/RR2109.html [11] "School Start Times." Cherry Creek Schools. <http://www.cherrycreekschools.org/Superintendent/SchoolStartTimes/Pages/default.aspx> [12] "Bell Schedules." South Lake Schools. https://www.solake.org/apps/bell_schedules/

