

April 2022



SDP School Start Times

EAA Research Brief

The Change

The School District of Philadelphia (SDP) announced March 17, 2022, that the District will alter the bell schedule for high schools¹ to push the start times back to 9:00 am beginning in the 2022-2023 academic year.

The SDP cited community feedback collected in 2021 and the American Academy of Pediatrics’ research showing a that later start times for high school students improves cognition and mental health. In this brief, the Education Association of America (EAA) will outline the medical rationale for pushing school start times back and examine analogous cases to determine whether the SDP was justified in its policy change.

The Arguments in Favor

Puberty lengthens the circadian cycles of adolescents, effectively pushing them back two to three hours from prepubescence. The result is that teenagers naturally fall asleep later and face difficulty in waking up before 7 am to be alert for the school day. By altering school start times to match students’ natural sleep cycles, students will increase their sleep time.

The primary reason for moving the starting bell back is that more sleep for students should translate to better learning and cognition, and thus higher grades. Later school start times are also correlated with increased attendance, decreased student vehicle crashes, and reduced transportation costs, as well as better physical and mental health, and improved classroom behavior.

Other Benefits of Later School Start Times	
Increased attendance	Decreased student vehicle crashes
Reduced district transport costs	Better student health

¹ With four exceptions for high schools based on their schedule alignment with partner institutions.

Case Studies

The Seattle Public School District pushed its start times back by an hour to 8:45 am beginning with the 2016-17 school year. According to a University of Washington study which received NIH funding,² this change in school start times increased students' median sleep time by 34 minutes. Moreover, the same study found an increase in the median grade of students of 4.5%.

Minneapolis also moved their start time forward in 1997. A subsequent study found that both teachers and students benefitted significantly from the shift.³ Among the quantitative benefits recorded were higher attendance rates, higher persistence rates, and higher grades. The Minneapolis study also included a qualitative component consisting of voluntary teacher assessment of the change. Teachers nearly unanimously reported students made it to class on time and alert more frequently and fell asleep in class less frequently. Another, perhaps unintended, effect of this time shift was that teachers reported the extra time gave them more planning time in the mornings. Coaches surveyed reported no change in level of student participation in athletics. Indeed, the general consensus among coaches was that students were less tired and more alert for practices. One negative effect reported by coaches was that away games were significantly more difficult due to later departures from school.

The Arguments Against

Commonly cited disadvantages of shifting school start times back include increased childcare costs, returning home later from extracurricular activities or giving them up altogether, and less time at home with family. But whether these factors will significantly impact Philadelphia, given the closely tailored policy which applies only to high schools remains to be seen.

Unlike in school districts such as Boston, Philadelphia's new bell schedule is only applicable to high schools. As a result, financial and logistical issues stemming from childcare should be minimal. More concerning, however, is whether the change will curtail students' time with family in their formative years. Between college and career preparation, extracurricular activities, work, and academic homework, high school students have many demands on their time. Pushing the start bell back by an hour could reduce further the amount of time students spend with their families.

One possible solution is that schools provide more dedicated time to work on take-home assignments at school. Indeed, a uniform study hall period in schools would ensure that students not only receive time to finish their work but do so in an environment conducive to their success, including quiet, safety, and access to study materials. Additionally, utilizing high impact review tools like the EAA's PRML Program could help expedite school work.

² "Sleepmore in Seattle: Later school start times are associated with more sleep and better performance in high school students", Dunster, Iglesia, et al. in *Science Advances*, Vol. 4, No. 12, 2018.

³ "Changing Times: Findings from the First Longitudinal Study of Later High School Start Times", Kyla Wahlstrom in *NASSP Bulletin*, Vol. 86, No. 633, 2002.

Conclusion

We have no doubt that the negative ramifications of shifting the school start time back are outweighed on balance by the positive externalities. The SDP has both the power and responsibility to address the negative impacts generated by their bell schedule change, and we sincerely hope they will do so. Nevertheless, given the significant positive outcomes to student health and academic performance, the EAA unreservedly supports the District's plans for the 2022-23 school year bell times.