

The Controversy over the Beginning Time of the School Day in the United States

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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The beginning time of the school day in US public schools is a matter of controversy. The starting times of schools typically vary depending upon whether they are elementary schools, middle or junior high schools, or high schools. Historically, high school schedules have been influenced by other demands on students' time, such as work or family obligations. During the 2011-12 school year, about 82 percent of US public middle and high schools started before 8:30 AM. In addition, 43 of the 50 states reported between 75-100% of their public schools to have started before 8:30 AM (fig. 1). In the 21st century, however, there have been many efforts to restructure the start time of schools. According to the Adolescent Sleep Working Group, a network of health researchers: "Earlier school start times (ie, before 8:30 AM) [are] a key modifiable contributor to insufficient sleep ... Furthermore ... delaying school start times is an effective countermeasure to chronic sleep loss and has a wide range of potential benefits to students with regard to physical and mental health, safety, and academic achievement" (ASWG, 2014). Some school districts have begun the school day later to better serve students' needs, but others have been more responsive to competing pressures from sources including parents, school bus shortages, and the students themselves.

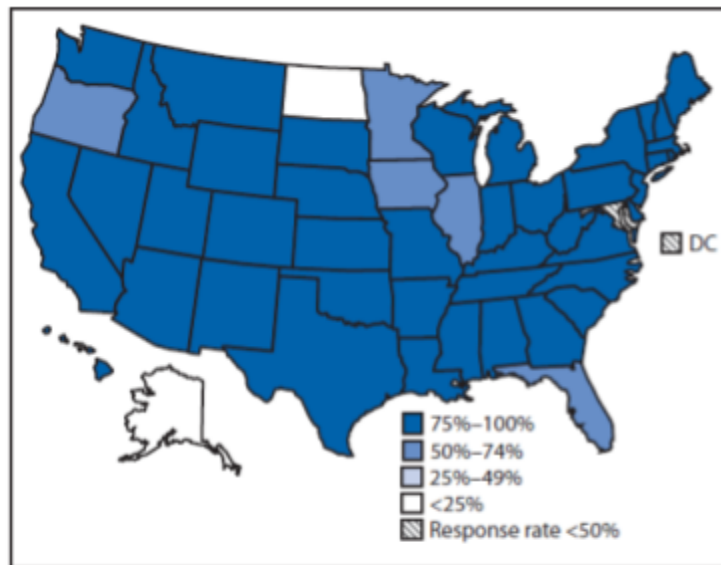


Figure 1: Percentage of middle, high and combined schools with start times before 8:30 AM by state (Wheaton et al., 2016)

The Importance of A Good Night's Sleep

One of the biggest problems with the old school start time system was that high schoolers would get insufficient sleep. The American Academy of Pediatrics (AAP) brought the problem to the public's attention through a publication in their journal *Pediatrics* worked on by its Adolescent Sleep Working Group. There, they established that children undergoing puberty experience a shift in sleep-cycles by up to two hours (Frey et al., 2009). Furthermore, "several studies from different perspectives indicate that adolescent sleep needs do not decline from preadolescent levels, and optimal sleep for most teenagers is in the range of 8.5 to 9.5 hours per night... the average teenager in today's society has difficulty falling asleep before 11:00 pm and is best suited to wake at 8:00 AM or later" (ASWG, 2014).

Due to the early start times of middle and high school, many of those students were not getting enough sleep. ASWG asserted this phenomenon, citing a National Sleep Foundation poll that found "59% of [middle schoolers] and 87% of high school students in the United States were getting less than the recommended 8.5 to 9.5 hours of sleep on school nights." In the same poll, 71% of parents thought their children were getting enough sleep (ASWG, 2014).

Insufficient sleep in adolescents can result in a variety of issues. A study done by the American Academy of Sleep Medicine found that "regularly sleeping fewer than the number of recommended hours is associated with attention, behavior, and learning problems. Insufficient sleep also increases the risk of accidents, injuries, hypertension, obesity, diabetes, and depression. Insufficient sleep in teenagers is associated with increased risk of self-harm, suicidal thoughts, and suicide attempts" (AASM, 2016). The ASWG expanded the list of potentially harmful side effects of insufficient sleep. They included increased susceptibility to stress,

increased consumption of caffeine and nonmedical use of stimulant medications, emotional dysregulation, and more (ASWG, 2014).

Everyone Has Their Own Opinion

Not only did research institutions explore the problem, but many went on to give their own suggestions into improving the issue. After their findings, “The American Academy of Pediatrics lends its strong support to school districts contemplating delaying school start times... and encourages all school administrators and other stakeholders... to review the scientific evidence regarding school start times, to initiate discussions on this issue, and to systematically evaluate the community-wide impact of these changes” (ASWG, 2014). Furthermore, the CDC details various ways for parents, health care professionals and school officials to “play an important role” in combating this issue. The advice involves encouraging parents and other role models to set good examples that children can follow and communication between different stakeholders and other involved groups about this issue (CDC, 2022). The issue is not simple, however, as there are many stakeholders involved in the issue. “Communities and cities — and entire economies — are built around students attending school at certain times. Workdays for many parents and guardians, for instance, begin after the school day commences” (HopSkipDrive, n.d.a). “The CAREI researchers discovered that changing a school’s starting time provokes the same kind of emotional reaction from stakeholders as closing a school or changing a school’s attendance area... The impact of changing that starting time is felt individually, and the individuals who are affected need to have their views heard and legitimized so that the discussion can move forward in search of common ground” (Wahlstrom, 1999).

Students, being the primary motivator for these changes, have been able to take matters into their own hands long before their potential lack of sleep became a public health issue.

“Students from Ladue Horton Watkins High School in Missouri produced a video for SchoolTube.com advocating later school schedules for teens” (STT, 2011). Students also went so far as to join a sleep club in an effort to raise awareness on the issues plaguing their school district. In Temecula Valley Unified School District in California, “new members are asked to sign a petition and then share the news about the club in their classes. More than 200 students have signed up so far” (Shultz, 2011).

Students aren't the only ones that are needed to rise to the occasion. Each of the above instances where students collaborated together to make change also involved the assistance of at least one teacher (STT, 2011). The University of Washington paired with two Seattle high schools to conduct a study comparing the sleep habits of groups of students before and after their start times changed. “Two teachers at Roosevelt and one at Franklin worked with the UW researchers to carry out the study, which was incorporated into the curriculum of the biology classes. Students in both groups also self-reported their sleep data” (Urton, 2018). Parents have also organized amongst themselves to create change. “While the west coast may be leading the charge in legislation, a group at U-High has advocated moving U-High's start time. Over the last two years, Joanna Martin, a Lab parent and practicing physician, has been working with a group of parents to shift U-High's start time later” (Edwards-Levin, 2019).

Despite a lot of efforts from students and teachers to raise awareness, there has still been a lot of skepticism expressed around changing their school's start time. “A few coaches complained that practices for older students now ran very late in the afternoon, and some mentioned that students who had after-school jobs or responsibilities for taking care of younger siblings after school were negatively affected. Finally, many teachers noted that they had problems making doctors' appointments when their school day started and ended later in the

day” (Buckhalt, 2024). Furthermore, the teacher’s opinion grows increasingly valuable as the profession itself gets more challenges. The COVID-19 pandemic and safety concerns among others have resulted in fewer people joining the profession. “Changing start times is unlikely to cause more teachers to enter or stay in the profession, but for some teachers who see some negative consequences and feel that they had minimal influence in the decisions, it might be just one more reason to leave” (Buckhalt, 2024). Finally, a study designed to gauge the impact of school start time changes on teachers and staff concluded that, “Although adolescent sleep and well-being are the primary factors driving start time changes, it is important to consider how this policy impacts other members of the school community” (Plog et al., 2019).

Parents want what is best for their children, but that doesn’t mean they all agree on how that is carried out. In a study conducted by the University of Michigan, “parents underestimated how much sleep their children needed, and only about half agreed with existing recommendations that school start times should be later” (Otman, 2017). There was also some significance with why parents agreed and disagreed with proposed changes. Parents would give support when associated with the prospect of improved academic performance or increased sleep duration. “Conversely, parents who anticipated too little time for after-school activities and need for different transportation plans were often less supportive,” (Dunietz et al., 2017). Families also have their own unique situations that can influence their agreeance with the proposed or already implemented changes. Larissa Balsaldu, a mother in Phoenix, Arizona, stated “I work at home so it wouldn’t be an issue, but for friends of mine who do have to go into the office with an hour commute, how would they get their kid there at a later time” (Williams, 2019). Parents within the same school district can even express different sentiments. In Duneland, Indiana, parents had very different reactions based on their unique circumstances. One mother, “Amanda Dech, a

parent of a fifth grader with severe [ADHD], says her daughter thrives with a strict schedule. With the new start times, she said it would uproot her child's entire schedule. Additionally, Dech said she would need to adjust her daughter's ADHD medication for it to last longer throughout the day.” Another mother shared, though, “I'm excited for her to have a later start time next year, and also hopefully shorter bus rides, so she can get more sleep” (Martinez-de la Cruz, 2023).

School boards and superintendents are ultimately the ones making the decisions to change school start times. They are most aware of all of the different stakeholders involved as well as the resources needed to be able to make said decisions. “Recently, the... AAP called for high schools to start no earlier than 8:30 am. As a recommendation grounded in science, this is fine. But as a public policy statement, it overlooks the value judgments that local school boards will have to make in order to implement it.” The vice chairman of the Fairfax County School Board went on to add, “Achieving the AAP's well-intentioned goal would require districts to spend more money on buses at the same time they spend less in the classroom” (Velkoff, 2014). The superintendents of both San Bernardino and Los Angeles County public schools shared concerns over transportation for rural students and feedback given to them by parents in their districts. They were ultimately optimistic of the changes being implemented in their school districts, believing the pros outweigh the cons (McMillan, 2022). Kevin Christian, a spokesperson for the Marion County school district, in response to legislation that Florida passed mandating when school times start, shared that, “We have to look at the schedule. We have to look at what’s best for students. Often what’s best for students is not what’s best for adults” (WKMG, 2024).

A common concern amongst school boards and superintendents is transportation concerns. Kevin Christian, in the same interview, added, “It’s been a huge challenge this year.

Bus drivers are hard to find... The committee over the proposed changes try to maximize student time in the classroom while taking into account the circumstances of some 24,000 students riding buses in the district” (WKMG, 2024). “Many school districts are staggering bus schedules in an effort to get more children to school using the too-few school bus drivers they have on staff. [Hopefully] by tinkering with bell schedules, they can get the same number of students to the same number of schools without reducing routes” (HopSkipDrive, n.d.a). “School bus driver shortages are a national crisis, affecting 92% of districts, according to data gathered as part of our 2023 State of School Transportation Report” (HopSkipDrive, n.d.b). In an effort to combat this, “one large urban district turned to hiring math experts from the Massachusetts Institute of Technology to develop algorithms to create more efficient bus routes and select new start times that better align with teens’ sleep needs” (Heubeck, 2023).

What’s Been Done

Chesterfield County, VA Public Schools

Chesterfield County Public Schools (CCPS) used to follow a traditional start time system. High schools started at 7:20 AM, with most middle schools following at 8:20 AM and most elementary schools at 9:20 AM. There were some middle schools and elementary schools in non-standard time slots to balance the amount of bus drivers used in each slot.

In February 2017, though, the CCPS School Board proposed and approved a new set of start times for the 2018-2019 school year (Wilder, 2017; Table 1).

7:35 AM-2:05 PM	Middle schools (with the exception of one because of extremely long bus rides)
7:45 AM-2:15 PM	6 elementary schools

8:30 AM-3 PM	All high schools, the aforementioned middle school, and 5 elementary schools
9:25 AM-3:55 PM	All remaining elementary schools

Table 1: CCPS’s Proposed Start Times (CCPS, 2021)

In response to the change, School Board Chair Dr. Javaid Siddiqi stated, “Our target all along has been to move high school starting times. This is based on research that shows a scientifically proven sleep pattern that does not align with our current schedules.” (CCPS, 2021). Before deciding on new times, they took the issue to the parents of the district. “14,000 responses came in over a one-month period. One of the biggest takeaways: seven out of 10 parents wanted to change the time high school starts.” (Solomon, 2017). Positive reception continued, but that’s not to say it was all positive. In 2019, a Facebook group was created in an attempt to bring awareness to the harm this change caused (RCCPSTC, 2019). A petition was linked there. It only received 23 signatures to this day, resulting in there being no activity in the Facebook group (Carnes, 2019).

Montgomery County, MD Public Schools

Montgomery County has the largest student body of any municipality in Maryland. The changes they made to their school start times, however, were small in comparison to CCPS. Similarly to them, the first school to start was high schools followed by middle and then elementary schools. In December 2012, though, “Montgomery County Public Schools (MCPS) Superintendent Dr. Joshua P. Starr directed staff to convene a work group — including community stakeholders — to develop options to address students’ need for more sleep, and in particular, to consider adjustments to school start times” (AACPS, 2014a).

On February 10, 2015, the Montgomery County Board of Education voted to change school start and end times in MCPS for the 2015-2016 school year. The changes would have high school and middle school start 20 minutes later with elementary schools starting 10 minutes later. The elementary school day was also extended by 10 minutes (MCPS, 2015; Table 2). There are two start times for elementary schools in MCPS so they can stagger bus routes and have them service both start time tiers at the same time. This was present before and after the start time change.

	Old Start Time(s)	New Start Time(s)
High School	7:25 AM	7:45 AM
Middle School	7:45 AM	8:15 AM
Elementary School	8:50 or 9:15 AM	9 or 9:25 AM

Table 2: MCPS's Proposed Start Times (AACPS, 2014b)

A neighboring county's school district contacted MCPS with questions regarding the change. Ms. Denise Bracalilly Stultz, Supervisor for Family and Community Engagement Office, answered their call. When asked how parents felt about the change, she said, "High school and middle school parents seem generally happy. Elementary school parents are not. There are three reasons why: (1) Traffic... since the roads are more crowded as the afternoon gets later and some elementary students are not getting home until 5. (2) Because no additional buses were purchased and traffic is heavier, buses to the latter group of elementary schools, which should be at the school by 3:50 PM, often don't arrive until 4:30 PM. (3) Parents complain that they have had to spend more money on child care before school since they need to be at work and need someone to watch their children" (AACPS, 2015).

Negative feedback would go on to be further documented. One father of three questioned how this change would be positive for elementary school students. A mother of four expressed,

“the change did not achieve what was developmentally appropriate for either group. In her family, it has given minimal relief to her high school student while wearying her fifth-grader, who steps off his bus nearly 40 minutes later than last year, apparently because of more traffic” (St. George, 2015). Andrew Winter, principal at Lucy V. Barnsley Elementary School, told the board, “Before the changes... our students would get home closer to 4:45 PM, and now it’s beyond 5 PM. Parents share that it also affects time with tutors, clubs, instrumental lessons, and sports. I further hear about how tired students are due to the extended day of leaving an hour or more before school begins and getting home an hour or later after dismissal” (Iannelli, 2017).

Loudoun County, VA Public Schools

Unlike the two aforementioned school districts, Loudoun County Public Schools (LCPS) changed its bus routes in response to bus driver shortages and frequent delays. “[LCPS] is adjusting its school schedules to increase the reliability and safety of transporting students and on-time arrival, ensuring students receive the maximum classroom instruction. Making these schedule changes also will address a bus driver shortage by cutting the number of second runs to schools significantly. It also will result in fewer delays and a more reliable schedule for students and their families” (LCPS, 2022). Similar to MCPS, there are two start times for elementary and middle schools in an effort to stagger bus routes.

	New Start Time(s)
Elementary School	7:30 or 8:00 AM
Middle School	8:30 or 8:50 AM
High School	9:30 AM

Table 3: LCPS Proposed Start Times (LCPS, 2022)

One concern with these times is that high schools end at 4:18 PM. Molly Menickelly, an English teacher in the district, stated, “I think the end of the day [is] really hard for a lot of students, especially if they’re worried about getting to practice or work, as they might be more distracted” (Jones, 2022). Furthermore, “In the hours before school begins, there seems to be an awkward dynamic: students have excess time, but just barely enough to accomplish anything substantial. Although some appreciate the time in the morning that can be spent sleeping, the overall sentiment students reflect is frustration with such a late start” (Board, 2023). The concern extends even further to those participating in extracurricular activities. LCPS stated that athletic events wouldn’t be delayed in time, resulting in concern over where the time difference will come from. Assistant principal Jon Signorelli said, “Students who leave on early release [for sports] are missing more of that last block of the day, meaning we’ll cut into more instructional time, which isn’t good” (Jones, 2022). Sports aren’t the only extracurricular affected. “Winter Guard members have practice from 7 to 10 PM., sometimes even later. Students and administrators staying this late at school poses transportation risks, as there can be lighting and safety issues during the dark after school hours” (Board, 2023).

Virginia Beach City Public Schools

Instead of implementing a start time schedule similar to LCPS, Virginia Beach City Public Schools (VBCPS) opted to stay with their current times. Near the end of the 2018-19 school year, VBCPS released a press release, “seeking feedback on [four schedule] options” (VBCPS, 2019). After the survey collected a “high volume” of response and a vote from their school board, no change was made. “With a 10 to 1 vote, parents and students won’t have to worry about changing their schedules next school year. According to a survey, more than 76% of people want times to stay the same” (13News Now Staff, 2019). Freshman Abby Anderson

commented, “I’m honestly really happy they didn’t change the start times. It allows me to continue with my current schedule without having it altered and messed up” (Waters 2019). The article goes on to list either strong or slightly positive feelings about the lack of change.

Actions Have Consequences

While many school districts have attempted to cater toward as many stakeholders as possible, it's apparent that this is quite ambitious. The problem is not as simple as trying to maximize the amount of sleep that students receive. Even in instances where there was a majority of positive feedback, there was still a vocal minority expressing their discontent. The greatest groups marginalized seem to be parents and students who go to school either very early or very late. These times raise transportation risks from traveling either while the sun is down or through significant traffic. Extracurricular activities and school-life balance are also impacted from later start times for all age brackets.

Some states have proposed or even passed legislation in an attempt to solve the issue. While legislation was not discussed in this paper, the research shows that strictly mandating start times will only bring upon unforeseen consequences when trying to generalize the problem to such an extent. The decisions were best received when feedback from citizens of the district were thoroughly considered. That is not to say that those decisions were the best, but being happy about a decision is a good place to start.

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