

# **March 5th 2025 - Support (FAV) for SB468 (Start Ti**

Uploaded by: Alexander Allin

Position: FAV

## **March 5th, 2025 - Alexander Allin: Support (FAV) for SB 468**

Good afternoon, Mister Chair, Madam Vice-Chair, and Committee Members. My name is Alexander Allin, and I'm a high school senior from District 16 in Montgomery County.

Like many students, I hate waking up early for school. While my surrounding school districts start high school between 8:10 and 9:30 a.m., my school starts at 7:45 a.m., buses arrive at 6:30 a.m., and students must wake up before 6 a.m. just to be on time.

This leaves drowsy students on buses before dawn, struggling to focus in their first-period classes. If you are unfortunate enough to have your first-period class be AP Calculus, like I did last year, you would immediately realize how essential just 30 more minutes of sleep can be.

When I surveyed 147 students across my county, over 50% admitted they skipped their first-period classes to catch up on sleep, while 45% reported being late at least once a week because of morning drowsiness. I know this struggle firsthand. I'm late to first period so often that my first-period teacher congratulated me for being on time last week. Therefore, I can attest that students, including myself, are skipping classes and missing valuable instructional time just to get the sleep they need.

We all know the effects of sleep deprivation: irritability, increased stress, and difficulty concentrating. In a school environment, this translates to more fights, lower grades, and students losing valuable internships. As a student apprentice myself, there have been days when I come home from school and passed out from exhaustion, missing important meetings and appointments.

The solution may seem obvious: These teenagers are irresponsible, are on their phones, and should sleep earlier. However, middle and high school students have a delayed circadian rhythm during puberty, causing them to feel tired two hours later than most people. The growth

**March 5th, 2025 - Alexander Allin: Support (FAV) for SB 468**

of technology and social media also plays a huge role with students competing with billion-dollar companies that want their attention for ad revenues and profits.

We can't put all the responsibility on students to fight against their natural sleep schedules and break free from intentionally addictive algorithms made to keep them awake at night. Because simply saying "just go to sleep earlier" is no longer an option, I urge you to pass a favorable report for SB 468.

Thank you for your time and consideration!

Alexander Allin, [alex@duck.science](mailto:alex@duck.science)

Bethesda-Chevy Chase High School

District 16 (Montgomery County)

**2025\_AWolfsonsupport\_SB468.pdf**

Uploaded by: Amy Wolfson

Position: FAV



LOYOLA UNIVERSITY MARYLAND

— 1852 —

*Department of Psychology*

March 3, 2025

Senate Education, Energy, and Environment Committee  
Annapolis, MD

Re: **SB 468 School Start Time Legislation SUPPORT**

Dear Members of the Senate Education, Energy, and Environment Committee:

I write to support **Senate Bill 468**, which would set guardrails for bell times for middle schools at 8:00am and High Schools at 8:30am.

I'm a Professor of Psychology at Loyola University Maryland and a member of the Start School Later Board of Directors. I have been engaged in adolescent sleep and school start time research for over 30 years. Although I returned to Maryland nearly 10 years ago, the blue crab state is near and dear to my heart as I graduated from Crest Haven Elementary School in Silver Spring.

My research, some federally funded, has focused on adolescents' sleep needs and daytime functioning with particular attention to emotional well-being, substance use, and school performance. I am a co-author of the *2014 American Academy of Pediatrics' Policy Statement on School Start Times for Adolescents* and the recent Abell Foundation report: *Later School Start Times for Adolescents in Baltimore City Public Schools: Opportunities and Recommendations*. This report states:

“Consistent with the concept that a student’s opportunity to obtain sufficient and regular sleep should not depend on Zip code, we recommend that City Schools support legislation setting statewide parameters as guardrails to ensure that schools cannot require students to be in class at unsafe, unhealthy, and counterproductive times...”

My colleagues and I, from sleep researchers to pediatricians, school psychologists, economists, middle/high school educators, and my students know that insufficient sleep in adolescents is an important public health issue that significantly affects the success of Maryland’s middle and high school students. By supporting **SB 468 into law**, you and all of Maryland will help to ensure healthy, safe, and equitable school hours not just in Maryland but throughout the nation. Maryland should take the lead as it has done for decades in the interest of our children’s health, safety, and school performance!

With the onset of puberty, most adolescents begin to experience a sleep–wake “phase delay” (later sleep and wake times), manifested as a shift of up to 2 hours compared to their younger peers. At the same time, teens’ sleep needs do not decline from preadolescent levels, and optimal sleep for most

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teenagers is in the range of 8.5 to 9.5 hours per night. On a practical level, this means that the average teenager has difficulty falling asleep before 11:00 PM and is best suited to wake at 8:00 AM or later --- making it challenging to get sufficient sleep if middle/high schools start before 8:30 AM. Keep in mind that long commute times and multiple buses (e.g., Baltimore City) add to the sleep and start time challenge.

I have no doubt that based on longstanding school start time research and real-world examples from school districts throughout the US (e.g., **Anne Arundel Country**) have demonstrated that delaying school start times is an effective countermeasure to chronic sleep loss and has definitive benefits for **all students**: school success, physical and mental health, and safety, particularly prevention of life-threatening sleepy driver accidents.

I know that Maryland has a long history of implementing policies that protect the health of children and adolescents. **Please lead Maryland and the nation and support SB 468 to ensure healthy, safe, and equitable school hours for our adolescents.**

Sincerely,

A handwritten signature in blue ink that reads "Amy R. Wolfson". The signature is fluid and cursive, with a long horizontal flourish at the end.

Amy R. Wolfson, Ph.D.  
Professor of Psychology  
[awolfson@loyola.edu](mailto:awolfson@loyola.edu)

# **BCPTA Council support for SB 468.pdf**

Uploaded by: Andra Broadwater

Position: FAV



**The Baltimore County PTA Council supports Senate Bill 468.**

The Baltimore County PTA Council assists our approximately 150 district PTAs and PTSAs in their efforts to make every child's potential a reality by engaging and empowering families and communities to advocate for all children.

We support Senate Bill 468, requiring districts in Maryland to implement safe and healthy school start times for middle and high schools, meaning not before 8am for middle schools and not before 8:30am for high schools. This aligns with recommendations from the American Academy of Pediatrics, the Centers for Disease Control, the U.S. Surgeon General, National PTA, and many other professional organizations. It also aligns with the resolution passed by the of the Baltimore County PTA Council in 2016.

In Baltimore County, our adolescent students are in crisis. According to the latest youth risk behavior survey, about 41% of Baltimore County adolescents felt sad or hopeless enough that they stopped doing some usual activities. More concerning, about 20% seriously considered attempting suicide, and about 16% actually tried to do so at least once during the 12-month survey period.

But even though the district has implemented many supports for student mental health, the PTA Council feels like the school district is ignoring the elephant in the room contributing to the poor mental health of our students: early school start times.

Under the current schedule, *our regular high school bus pickups start around 6am*. Magnet schools' buses start even earlier.

Biology makes it hard for adolescents to go to sleep before about 11:00, yet they still need about 9 hours of sleep. Doing the math, we're asking them to be ready for the bus 2 hours before their bodies are ready to be awake. And if you ask any high school teacher if they have a class of fully awake and alert kids for first period, you'll get a flat-out "no."

When kids are fully rested, they achieve higher academically and in sports, and are more physically and mentally healthy. So why isn't this part of the catalogue of supports for our students? For one thing, change is hard, and changing district school start times requires strong leadership. A state mandate would help districts make the change sooner than later – we've seen decades of discussion in area districts before making this change to support student health, and it's been ten years since the 2014 joint report from Maryland's Departments of Health and



Education, which recommended districts in Maryland change school start times to 8am or later. As it eloquently stated:

“in preserving the status quo ... the state risks letting local resistance trump a strong body of scientific evidence that sleep is critical to health and academic achievement.”

Maryland school districts are charged with providing students with the supports necessary to learn, achieve, and find success in college and careers. None of that is possible if they're too tired to learn.

The Baltimore County PTA Council urges the members of the Senate Education, Energy, and the Environment Committee to use your leadership to prevent what the report predicted: letting local resistance trump the scientific evidence. Please pass this bill to start school later.

# Free State PTA support for SB 468.pdf

Uploaded by: Andra Broadwater

Position: FAV



As a state-level branch of National PTA, Free State PTA represents hundreds of thousands of parents, teachers, students, and community members in Maryland. Free State PTA works to promote the welfare of children and youth, fostering collaboration between parents, educators, and stakeholders to enhance education and well-being.

Free State PTA supports Senate Bill 468, requiring middle and high schools to implement safe and healthy school start times, meaning not before 8am for middle schools and not before 8:30am for high schools. This aligns with recommendations from the American Academy of Pediatrics, the Centers for Disease Control, the U.S. Surgeon General, National PTA, and many other professional organizations.

Across Maryland, thousands of students are on the bus in the 6am hour or earlier. These hours are incompatible with known sleep patterns of teenagers, most of whom need about 9 hours of sleep a night. Physiology limits most adolescents' ability to fall asleep much before 11 p.m., regardless of homework and extracurricular demands or electronic distractions.

Just as it's hard to learn when you are hungry, it's hard to learn when you have algebra an hour before your biological clock is set to "wake." It's also hard to grow and be healthy. Sleep deprivation impairs attention, memory, and judgment. It also leads to mood swings, obesity, substance abuse, immune disorders, depression, suicide, risky behaviors, and even car accidents. When schools delay bell times, mood, performance in class and on tests improve, and sports performance improves; truancy, tardiness, and drop-out rates decrease, and teens actually get more sleep per night. Even rates of car crashes decrease.

With careful planning and strong leadership, this change does not have to add to district transportation costs – in some districts across the nation, changing to safe and healthy school start times, as required by this bill, have served as a money saving strategy. We recommend the fiscal note be updated to reflect additional data.

As the 2014 joint report from Maryland's Departments of Health and Education eloquently stated:

“Any consideration of a statewide mandate for a later school start time must consider the unique needs of each of the 24 local jurisdictions. However, in preserving the status quo whereby school start times are a matter for each local jurisdiction, the state risks letting local resistance trump a strong body of scientific evidence that sleep is critical to health and academic achievement.”

Free State PTA urges the members of the Senate Education, Energy, and the Environment Committee to use your leadership to prevent what the report predicted: letting local resistance trump the scientific evidence. Please pass this bill to start school later.

# **SB468 Public Middle, High, Charter Schools Start t**

Uploaded by: Angela R Jones

Position: FAV

JOANNE C. BENSON  
Legislative District 24  
Prince George's County

MAJORITY WHIP

Budget and Taxation Committee

*Subcommittees*

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Audit and Evaluation Committee

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Ending Homelessness

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THE SENATE OF MARYLAND  
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**Testimony**  
**Senator Joanne C. Benson**  
**Support of SB468:**  
**Public Middle, High, and Charter Schools - Start Time for Instruction**

Good afternoon, Chair Feldman, Vice Chair Kagan, and members of the Education, Energy, and Environment Committee. I am here not just to testify, but to show my unwavering support of Senate Bill 0468, which addresses the start times for public middle, high, and charter schools.

As a Long-term Legislator, former Principal, and former Educator. I can honestly testify that I have witnessed firsthand the profound impact of early school start times on students' overall well-being and academic performance. SB0468 is a critical piece of legislation that aims to improve the health and academic success of our students by mandating later start times for schools. Beginning in the 2027-2028 school year, this bill requires all public middle schools to start no earlier than 8:00 a.m. and all public high schools to start no earlier than 8:30 a.m.

Research has consistently shown that later start times align better with the natural sleep patterns of adolescents, leading to improved mental and physical health, better academic performance, and reduced absenteeism. In my experience, I have seen how chronic sleep deprivation can negatively impact students' ability to concentrate, retain information, and engage in classroom activities. By implementing later start times, SB0468 will help ensure that our students are well-rested and ready to learn, ultimately leading to a more successful and productive educational experience.

Moreover, this bill initiates a vital public service campaign to spotlight the critical need for sufficient sleep and the newly established school start times. By educating parents, students, and the community about the lasting benefits of this change, we can foster a smoother transition and promote a healthier future for our children.

In conclusion, I urge the committee to support SB0468 and take this important step towards improving the health and academic success of our students. Thank you for your time and consideration.

# **Congressional testimony .pdf**

Uploaded by: Aysheh Abuarqub

Position: FAV

Chairman Feldman and members of the committee, thank you for allowing me to participate in today's hearing and thank you for your attention to a topic that is of critical importance.

My name is Aysheh Abuarqub. I am a freshman psychology major at Loyola University Maryland studying adolescent sleep. I have attended Maryland public schools for fourteen years. I attended Worcester County Public Schools for preschool through seventh grade and Baltimore County Public Schools for grades eight through twelve. If you asked any one of my teachers at any given time to describe me they may say something like "thoughtful", "inquisitive", or "chronically-late." As far back as elementary school I can remember being excited about my education, and eager to learn but always facing a roadblock in the mornings. And not for lack of trying. I've tried countless sleep hygiene routines, alarm clocks, and accountability systems to get myself out to bed and into school on time. When I've prioritized my sleep so that I could get to school on time I've found myself falling behind in my school work and social life. When I've prioritized my academics and tried getting to school on time through sheer willpower I've found myself unable to focus and having chronic illness flare ups which have left me vomiting in the mornings and late to class yet again.

Early school start times have been detrimental to my health and education, and I am not alone in this struggle. It is often said that we are all forced to live in the morning person's world, but with early school start times we are forcing children to live in an adult's world. High schoolers need around ten hours of sleep per night and current early school start times are robbing them of that opportunity and therefore their health in this crucial stage of development.

Let's consider an ideal day in the life for an average high school student in Baltimore City. This student takes public transit to school like 41% of their peers, since they don't qualify for school sponsored transportation and their family doesn't own a car. So they leave the house at 6:54 am to make it to school *just* in time to be saved by the bell and make it to class in time. And this is if all goes according to plan and the bus or train makes it to their stops reliably, as scheduled, and with no mishaps along the way, which we all know is often not the case. So what time does this student need to wake up? Well assuming again that they are perfectly average, they would need about half an hour to go to the bathroom, shower, and eat breakfast before going to school, meaning they need to get up bright and early at 6:04 am.

So what time would they need to go to sleep? 8 p.m. This gives them five hours between the end of their school day and bed time to do the following tasks:

1. Commute back home: about half an hour
2. Have dinner: about another half hour if they're not helping with cooking, clean up, or setting the table
3. Get the daily recommended amount of exercise: at least one hour



4. Complete any homework: about 1 hour is how much is *reportedly* assigned (though we all know that this is often not the case) however following the assumption that this statistic is accurate when considering the average high school students attention span is only about half an hour, this “hour of homework” could easily turn into an hour and half when accounting for necessary breaks.
5. Complete their nightly routine: this could take anywhere from thirty minutes to an hour.

So, totaling that all up, on a perfect day if all goes according to plan our “average” healthy student is left with thirty to sixty spare minutes in their day to socialize, connect with family, complete any chores, and do any hobbies.

Life does not look this way. Things go wrong. Buses get delayed, students get sick, they get distracted, they need to socialize, clean their rooms, take care of their pets, and above all students need to sleep. We can adjust our education system for better outcomes all we want but it will never work if we are not accounting for student health. Our current system sets students up to fail and it cannot go on. We must treat our students with respect, and give them time to lead healthy lives. I urge you to pass Senate Bill 468 so that we can give our students a fighting chance for their education and health. Thank you.

# Support

Uploaded by: Ben Chico

Position: FAV

Good [morning/afternoon]]. My name is Ben Chico, and I am a lifelong Maryland resident and a psychology student at Loyola University Maryland. I am here today to voice my strong support for legislation mandating later school start times for middle and high school students.

Having attended school in Maryland my entire life, I experienced firsthand the negative effects of early school start times. I often struggled to stay awake in class, which made it harder to focus on my academics. This is not simply an issue of students staying up too late—it is a biological reality. Research has shown that during adolescence, circadian rhythms shift, causing teenagers to naturally stay up later. This shift, combined with early school start times, prevents students from getting the recommended minimum of around 9.2 hours of sleep per night.

Over time, students accumulate sleep debt throughout the week, leading them to "catch up" by sleeping in on weekends. However, just as skipping meals for several days cannot be undone with one large meal, sleep deprivation cannot be reversed with a couple of extra hours on the weekend. The consequences of insufficient sleep extend far beyond feeling tired in class. Chronic sleep deprivation has been linked to increased risks of cardiovascular disease, obesity, and declines in academic performance and overall well-being.

One of the biggest concerns for school districts is transportation logistics, but many solutions exist, including optimizing bus routes and utilizing alternative transportation methods. While these challenges require planning, they should not take precedence over the health and success of Maryland's students. At the end of the day, our priority should be to invest in the well-being and future of the next generation. Ensuring students get adequate sleep is a critical step in setting them up for academic and personal success. I strongly urge you to support this legislation.

Thank you for your time and consideration.

**SB0468\_FAV\_MedChi, MDAAP\_Public Middle, High & Cha**

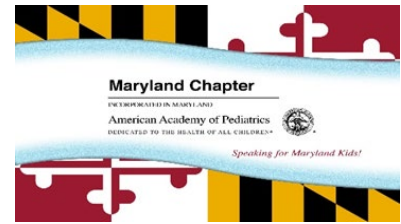
Uploaded by: Christine Krone

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Senate Education, Energy, and the Environment Committee  
March 5, 2025

Senate Bill 468 – *Public Middle, High, and Charter Schools – Start Time for Instruction*  
**POSITION: SUPPORT**

On behalf of MedChi, The Maryland State Medical Society, and the Maryland Chapter of the American Academy of Pediatrics, we submit this letter of support for Senate Bill 468. The bill requires, beginning with the 2027-2028 school year, all middle schools in the State to begin instruction no earlier than 8:00 a.m. and all high schools in the State to begin instruction no earlier than 8:30 a.m.

Adolescents across the United States are facing a public health crisis of insufficient sleep, which significantly impacts their physical health, mental well-being, and academic performance. The American Academy of Pediatrics (AAP) has recognized this issue and recommends that middle and high schools start no earlier than 8:30 a.m. to align with adolescents' natural sleep rhythms and promote better health outcomes.

During puberty, adolescents experience a shift in their circadian rhythms, causing them to feel alert later at night and making early morning wake times challenging. This biological change means that early school start times are misaligned with adolescents' natural sleep patterns, leading to chronic sleep deprivation. The AAP emphasizes that teenagers require between 8.5 to 9.5 hours of sleep per night for optimal health and functioning.

Aligning school schedules with the biological sleep needs of adolescents is a critical step toward improving their health, safety, and academic success. The AAP's recommendation to start school no earlier than 8:30 a.m. is grounded in extensive research and offers a practical solution to the pervasive issue of adolescent sleep deprivation. For more information, the AAP's policy statement on school start times is attached. By adopting later start times, schools can create an environment that fosters healthier, more well-rested, and higher-achieving students. MedChi and MDAAP urge a favorable vote.

**For more information call:**

Christine K. Krone  
J. Steven Wise  
Danna L. Kauffman  
Andrew G. Vetter  
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## POLICY STATEMENT

## School Start Times for Adolescents

## abstract

FREE

The American Academy of Pediatrics recognizes insufficient sleep in adolescents as an important public health issue that significantly affects the health and safety, as well as the academic success, of our nation's middle and high school students. Although a number of factors, including biological changes in sleep associated with puberty, lifestyle choices, and academic demands, negatively affect middle and high school students' ability to obtain sufficient sleep, the evidence strongly implicates earlier school start times (ie, before 8:30 AM) as a key modifiable contributor to insufficient sleep, as well as circadian rhythm disruption, in this population. Furthermore, a substantial body of research has now demonstrated that 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. The American Academy of Pediatrics strongly supports the efforts of school districts to optimize sleep in students and urges high schools and middle schools to aim for start times that allow students the opportunity to achieve optimal levels of sleep (8.5–9.5 hours) and to improve physical (eg, reduced obesity risk) and mental (eg, lower rates of depression) health, safety (eg, drowsy driving crashes), academic performance, and quality of life. *Pediatrics* 2014;134:642–649

**FACTORS INFLUENCING INSUFFICIENT SLEEP IN ADOLESCENTS**

Insufficient sleep represents one of the most common, important, and potentially remediable health risks in children,<sup>1,2</sup> particularly in the adolescent population, for whom chronic sleep loss has increasingly become the norm.<sup>3</sup> The reasons behind the current epidemic of insufficient sleep are complex and interrelated. From a biological perspective, at about the time of pubertal onset, most adolescents begin to experience a sleep–wake “phase delay” (later sleep onset and wake times), manifested as a shift of up to 2 hours relative to sleep–wake cycles in middle childhood.<sup>4</sup> Two principal biological changes in sleep regulation are thought to be responsible for this phenomenon.<sup>5,6</sup> One factor is delayed timing of nocturnal melatonin secretion across adolescence<sup>5,7,8</sup> that parallels a shift in circadian phase preference from more “morning” type to more “evening” type, which consequently results in difficulty falling asleep at an earlier bedtime.<sup>4</sup> The second biological factor is an altered “sleep drive” across adolescence, in which the pressure to fall asleep accumulates more slowly, as demonstrated by the adolescent brain's response to sleep loss<sup>9</sup>

ADOLESCENT SLEEP WORKING GROUP, COMMITTEE ON  
ADOLESCENCE, and COUNCIL ON SCHOOL HEALTH**KEY WORDS**

adolescents, insufficient sleep, school start times

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[www.pediatrics.org/cgi/doi/10.1542/peds.2014-1697](http://www.pediatrics.org/cgi/doi/10.1542/peds.2014-1697)

doi:10.1542/peds.2014-1697

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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and by a longer time to fall asleep after being awake for 14.5 to 18.5 hours in postpubertal versus prepubertal teenagers.<sup>10</sup> Thus, these 2 factors typically make it easier for adolescents to stay awake later. At the same time, 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.<sup>5,11,12</sup> On a practical level, this research indicates that 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.<sup>4,12,13</sup>

The sleep-wake changes that flow from this biological maturation may enable teenagers' interactions with such environmental factors and lifestyle/social demands as homework, extra-curricular activities, after-school jobs, and use of technology.<sup>14–16</sup> As a result, most teenagers stay up late on school nights, getting too little sleep, and then sleep in on weekends to “catch up” on sleep. Although this weekend oversleeping can help offset the weekly sleep deficit, it can worsen circadian disruption and morning sleepiness at school.<sup>9,17,18</sup>

### The Extent and Effects of Adolescent Sleep Loss

Given both biological demands and today's sociocultural influences, it is not surprising that many studies have documented that the average adolescent in the United States is chronically sleep deprived and pathologically sleepy (ie, regularly experiencing levels of sleepiness commensurate with those of patients with sleep disorders such as narcolepsy).<sup>19</sup> For example, a recent National Sleep Foundation poll<sup>20</sup> found that 59% of sixth- through eighth-graders 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; indeed, the average amount of school night sleep obtained by high school seniors was less than 7 hours. In this same survey, however, 71% of parents believed that their adolescent was obtaining sufficient sleep. This mismatch indicates a significant lack of awareness among adults regarding the extent of adolescent sleep loss. As a result, many middle and high school students are at risk for adverse consequences of insufficient sleep, including impairments in mood, affect regulation, attention, memory, behavior control, executive function, and quality of life (Table 1).<sup>21–26</sup>

Insufficient sleep also takes a toll on academic performance. In the National Sleep Foundation poll cited previously,<sup>20</sup> 28% of students reported falling asleep in school at least once a week, and more than 1 in 5 fell asleep doing homework with similar frequency. Many studies show an association between decreased sleep duration and lower academic achievement at the middle school, high school, and college levels, as well as higher rates of absenteeism and tardiness and decreased readiness to learn (Table 1).<sup>17,27–30</sup>

An increased prevalence of anxiety and mood disorders has also been linked to poor quality and insufficient sleep in adolescents.<sup>31–33</sup> Other specific health-related effects of sleep loss include increased use of stimulants (eg, caffeine, prescription medications) to counter the effects of chronic sleepiness on academic performance.<sup>34,35</sup> Adolescents are also at greater risk of drowsy driving-related crashes as a result of insufficient sleep.<sup>36,37</sup> Chronic sleep restriction increases subsequent risk of both cardiovascular disease and metabolic dysfunction, such as type 2 diabetes mellitus.<sup>38,39</sup> An association between short sleep duration and obesity in children and adolescents has been demonstrated in several cross-sectional and prospective

studies, underscoring how chronic sleep restriction can undermine health (Table 1).<sup>40,41</sup>

### IDENTIFYING SOLUTIONS: THE ROLE OF DELAYING SCHOOL START TIMES

This “epidemic” of delayed, insufficient, and erratic sleep patterns among adolescents and the accompanying negative effects on adolescent health and well-being highlight the importance of identifying potentially modifiable factors. The quest to reduce the high cost of sleep loss in adolescents is not only an important public health issue but one of paramount importance to educators, pediatric health care providers, and

**TABLE 1** Impact of Chronic Sleep Loss in Adolescents

Physical health and safety
Increased obesity risk
Metabolic dysfunction (hypercholesterolemia, type 2 diabetes mellitus)
Increased cardiovascular morbidity (hypertension, increased risk of stroke)
Increased rates of motor vehicle crashes (“drowsy driving”)
Higher rates of caffeine consumption; increased risk of toxicity/overdose
Nonmedical use of stimulant medications; diversion
Lower levels of physical activity
Mental health and behavior
Increased risk for anxiety, depression, suicidal ideation
Poor impulse control and self-regulation; increased risk-taking behaviors
Emotional dysregulation; decreased positive affect
Impaired interpretation of social/emotional cues in self and others
Decreased motivation
Increased vulnerability to stress
Academics and school performance
Cognitive deficits, especially with more complex tasks
Impairments in executive function (working memory, organization, time management, sustained effort)
Impairments in attention and memory
Deficits in abstract thinking, verbal creativity
Decreased performance efficiency and output
Lower academic achievement
Poor school attendance
Increased dropout rates

advocates for adolescent health. Although many changes over the course of adolescence can affect the quality and quantity of sleep, one of the most salient and, arguably, most malleable is that of school start times. Numerous studies have demonstrated that early start times impede middle and high school students' ability to get sufficient sleep. Studies comparing high schools with start times as little as 30 minutes earlier versus those with later start times demonstrate such adverse consequences as shorter sleep duration, increased sleepiness, difficulty concentrating, behavior problems, and absenteeism.<sup>29,30,42–46</sup> For example, in one key school transition study, Carskadon et al<sup>19</sup> evaluated the effects of a 65-minute advance (ie, move earlier) in school start time from grade 9 to grade 10 in 40 students. They found a delay in the biological markers of circadian timing but also objectively measured daytime sleepiness levels typical of patients with sleep disorders. Because circadian-based phase delays emerge at around the time of pubertal onset, they also affect younger adolescents, who increasingly are subject to many of the same environmental and lifestyle competing priorities for sleep as older teenagers. Recent research shows that delaying school start times for middle school students is accompanied by positive outcomes similar to those found in high schools, including later rise times, more school night total sleep, less daytime sleepiness, decreased tardiness rates, improved academic performance, and better performance on computerized attention tasks.<sup>30,47,48</sup>

According to the US Department of Education statistics for 2011–2012,<sup>49</sup> approximately 43% of the over 18 000 public high schools in the United States currently have a start time before 8:00 AM. Over the last 15 years, however, a small but growing number of

school districts have responded to research reports regarding insufficient sleep among middle and high school students with what may be viewed as a “systematic countermeasure” to reduce the prevalence of sleepiness and its consequences: delaying school start times. Early studies addressed a core question: “Does delaying start time result in students obtaining more sleep, or do students just stay up later and thus negate the effects of the delayed start time?” Wahlstrom et al<sup>50,51</sup> assessed more than 18 000 high school students in Minneapolis before and after the district's school start time changed from 7:15 AM to 8:40 AM beginning with the 1997–1998 school year. Bedtimes after the change were similar (ie, did not shift to a later time) to those of students in schools that did not change start times, and, as a result, students obtained nearly 1 additional hour of sleep on school nights during the 1999–2000 school year. Other studies have also failed to show a delay in bedtime in response to delayed start times. In a study involving grades 6 through 12 in a school district that delayed high school start times by 1 hour (7:30 to 8:30 AM), students averaged 12 to 30 minutes more nightly sleep, and the percentage of students who reported  $\geq 8$  hours of sleep increased from 37% to 50%.<sup>52</sup> Owens et al,<sup>53</sup> in a study of adolescents attending an independent school that instituted a start time delay of 30 minutes (from 8:00 to 8:30 AM), reported that average bedtimes actually shifted *earlier* by an average of 18 minutes, and mean self-reported school night sleep duration increased by 45 minutes. In addition, the percentage of students getting less than 7 hours of sleep decreased by 79%, and those reporting at least 8 hours of sleep increased from 16% to 55%. Finally, in a 3-year study of >9000 students from 8 public high schools in 3 states (Colorado, Wyoming, and Minnesota),

the percentage of students sleeping  $\geq 8$  hours per night was dramatically higher in those schools that had a later start time (eg, 33% at 7:30 AM vs 66% at 8:55 AM).<sup>54</sup>

Moreover, a number of studies have now clearly demonstrated that delaying school start times not only results in a substantive increase in average sleep duration but also has a significant positive effect on a variety of key outcomes; these effects range from decreased levels of self-reported sleepiness and fatigue to improvements in academic measures. In the Minneapolis study,<sup>50,51</sup> attendance rates for students in grades 9 through 11 improved, and the percentage of high school students continuously enrolled increased. Likewise, Dexter et al<sup>42</sup> found that public high school sophomores and juniors at a later- versus earlier-starting high school reported more sleep and less daytime sleepiness. Htwe et al<sup>55</sup> reported that high school students slept an additional 35 minutes, on average, and experienced less daytime sleepiness after their school start time was delayed from 7:35 to 8:15 AM.

Improvements in academic achievement associated with delayed start times have been somewhat less consistently demonstrated; in the Minneapolis study, grades showed a slight but not statistically significant improvement,<sup>50</sup> and standardized test scores were not increased overall compared with those before the start time change.<sup>46,56</sup> However, several recent studies have documented improvements in academic performance associated with later start times. A study of students in Chicago public high schools demonstrated that absences were much more common and student grades and test score performance were notably lower for first-period classes compared with afternoon classes and that performance on end-of-year



subject-specific standardized tests (ie, math, English) correlated with whether the student was scheduled for that subject during first period.<sup>56</sup> Similarly, first-year Air Force Academy students assigned to start classes after 8:00 AM (compared with before 8:00 AM) performed better in their first-period course and, in addition, had a 0.15 SD increase in performance across all of their courses.<sup>44</sup> In a study focusing on middle school students,<sup>45</sup> a 1-hour later shift in school start times was associated with an increase in reading test scores by 0.03 to 0.10 SD and in math test scores by 0.06 to 0.09 SD. The author concluded that an increase in start times by 1 hour would result in a 3 percentile point gain in both math and reading test scores for the average student. Furthermore, students performing in the lower end of the test score distribution seemed to benefit most, with gains roughly twice those in above-average students, and the effects persisted into high school. In a more recent middle school study by the same research group, the results suggested that moving school start later by 1 hour can have an impact on standardized test scores comparable to decreasing the class size by one-third. Finally, in a recent 3-state study, 5 of the 6 high schools in which grade point average was assessed showed a significant pre-post increase in grade point average in core subjects of math, English, science, and social studies.<sup>54</sup>

Finally, there may be additional health-related and other benefits associated with delays in start time. For example, students in the independent school study cited previously<sup>53</sup> reported significantly more satisfaction with their sleep. In addition, class attendance improved, as did health-related variables, including fewer visits to the campus health center for fatigue-related complaints.<sup>53</sup> Although not specifically

assessed as an outcome in previous research, later start times might increase the likelihood that students will eat breakfast before school and thus further enhance their readiness to learn.<sup>57</sup> Finally, improvements in teacher satisfaction linked to increased sleep offers yet another potential mechanism for classroom enrichment.

Several other outcome measures examined in these studies also deserve emphasis. In the study by Owens et al,<sup>53</sup> there were significantly fewer students self-reporting symptoms of depressed mood as well as improved motivation after the start time delay. In a more recent study, also conducted in an independent school setting, a 25-minute delay in start time was associated not only with increased sleep duration and decreased daytime sleepiness but also with less self-reported depressed mood.<sup>58</sup> Although more research is needed, given the mounting evidence supporting a bidirectional link between sleep patterns and problems and mood disorders in this population<sup>59</sup> (including an increased risk of suicidal ideation<sup>57</sup>), countermeasures that could potentially mitigate these effects have important public health implications.

Furthermore, adolescents are at particularly high risk of driving while impaired by sleepiness, and young drivers aged 25 years or younger are involved in more than one-half of the estimated 100 000 police-reported, fatigue-related traffic crashes each year.<sup>60</sup> Danner and Phillips<sup>52</sup> examined the relationship between automobile crash records for students 17 to 18 years of age and high school start times. Car crash rates for the county that delayed school start times decreased by 16.5% over the 2 years before and after the school-start change, whereas those for the state as a whole increased by 7.8% across the same time period. In another recent study conducted in

2 adjacent, demographically similar cities, there were significantly increased teen (16- to 18-year-olds) crash rates over a 2-year period in the city with earlier high school start times (2007: 71.2 per 1000 vs 55.6 per 1000; 2008: 65.8 per 1000 vs 46.6 per 1000 [ $P < .001$ ]), and teen drivers' morning crash peaks occurred 1 hour earlier.<sup>61</sup> Finally, the recent study by Wahlstrom et al<sup>54</sup> found a crash rate reduction in 16- to 18-year-olds of 65% and 70%, respectively, in 2 of the 4 high schools studied; notably, the high school with the latest start time (Jackson Hole, WY) had the largest decline in car crashes.

Although considerable empiric support exists for the concepts that early school start times are detrimental to adolescents' health and well-being and that delaying school start times results in substantive and sustained benefits to students, the ongoing debate among school districts in the United States regarding the widespread institution of later start times for middle and high schools continues to spark controversy. Moreover, the logistical considerations in implementing delayed school start times in middle and high schools are far from trivial. Wolfson and Carskadon<sup>62</sup> surveyed 345 public high school personnel regarding their perspective on high school start times, factors influencing school start times, and decision-making around school schedules. Most respondents at that time had not changed or contemplated changing their school start times. Perceived barriers to changing school schedules commonly endorsed included curtailed time for athletic practices and interference with scheduling of games, reduced after-school employment hours for students, challenges in providing child care for younger siblings, adjustments in parent and family schedules, potential safety issues, effects on sleep duration in younger children if

elementary school schedules are “flipped” with those of middle/high school students, and the need to make alternative transportation arrangements. However, to date, to our knowledge, there have been no published studies that have systematically examined the impact of school start time delay on these parameters, although anecdotal evidence suggests that many of these concerns are unfounded ([www.sleepfoundation.org](http://www.sleepfoundation.org)). Moreover, communities across the country have adopted a variety of creative solutions to address these problems, including shifting to public transportation for older students, enlisting community volunteers to provide supervision at bus stops, adjusting class schedules to minimize late dismissal times, scheduling free periods/study halls at the end of the school day to allow participation in after-school extracurricular activities, exempting student athletes from physical education requirements, and installing lights for athletic fields.

In addition, as outlined in a recent Brookings Institute Report (“Organizing Schools to Improve Student Achievement: Start Times, Grade Configurations, and Teacher Assignments”),<sup>65</sup> economists have suggested that delaying school start times would have a substantial benefit-to-cost ratio (9:1). This finding is based on a conservative estimate of both costs per student (\$0–\$1950, largely related to transportation) and the increase in projected future earnings per student in present value because of test score gains related to moving start times 1 hour later (approximately \$17 500). Finally, because the appropriation of federal dollars for schools is partially dependent on student attendance data, reducing tardiness and absenteeism levels could result in increased funding and further offset costs related to moving start times later.

## CONCLUSIONS

Taken together, these studies support the presence of significant improvements in benchmarks of health and academic success in a variety of settings in association with later school start times, including in urban school districts with a large percentage of low-income and minority students, suburban public schools, and college-preparatory independent schools. It is clear that additional research is needed to further document the effects of changes in school start times over time, to examine specific factors that increase or decrease the likelihood of positive outcomes, and to assess the effect on families, the community, other stakeholders, and the educational system in general. However, it may be strongly argued that both the urgency and the magnitude of the problem of sleep loss in adolescents and the availability of an intervention that has the potential to have broad and immediate effects are highly compelling.

It should also be emphasized that delaying school start times alone is less likely to have a significant effect without concomitant attention to other contributing and potentially remediable factors, such as excessive demands on students’ time because of homework, extracurricular activities, after-school employment, social networking, and electronic media use. One of the biggest challenges school districts face is the need to inform community stakeholders (eg, parents, teachers and administrators, coaches, students, bus drivers, businesses that employ students, law enforcement officials) about the scientific rationale underpinning the merits of delaying school start times; the threats to health, safety, and academic success posed by insufficient sleep; and the potential benefits for adolescents of school start time delay. Thus, education and community engagement are equally

key components in increasing the likelihood of success.

The American Academy of Pediatrics recognizes insufficient sleep in adolescents as a public health issue, endorses the scientific rationale for later school start times, and acknowledges the potential benefits to students with regard to physical and mental health, safety, and academic achievement. The American Academy of Pediatrics lends its strong support to school districts contemplating delaying school start times as a means of optimizing sleep and alertness in the learning environment and encourages all school administrators and other stakeholders in communities around the country 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 (eg, on academic performance, school budget, traffic patterns, teacher retention).

## RECOMMENDATIONS

1. Pediatricians should educate adolescents and parents regarding the optimal sleep amount teenagers need to match physiologic sleep needs (8.5–9.5 hours). Although napping, extending sleep on weekends, and caffeine consumption can temporarily counteract sleepiness, these measures do not restore optimal alertness and are not a substitute for regular sufficient sleep.
2. Health care professionals, especially those working in school-based clinics or acting in an advisory capacity to schools, should be aware of adolescent sleep needs. They should educate parents, teenagers, educators, athletic coaches, and other stakeholders about the biological and environmental factors, including early school start times, that contribute to widespread chronic sleep deprivation in America’s youth.

3. Educational interventions for parents and adolescents as well as the general public should be developed and disseminated by the American Academy of Pediatrics and other child and sleep health advocacy groups. Content should include the potential risks of chronic sleep loss in adolescents, including depressed mood, deficits in learning, attention and memory problems, poor impulse control, academic performance deficits, an increased risk of fall-asleep motor vehicle crashes, and an elevated risk of obesity, hypertension, and long-term cardiovascular morbidity. Information should also be included about the potential utility of systemic countermeasures, including delaying school start times, in mitigating these effects. Finally, educational efforts should also emphasize the importance of behavior change on the individual level and the personal responsibility that families and students themselves have in modifying their sleep habits.
4. Pediatricians and other pediatric health care providers (eg, school physicians, school nurses) should provide scientific information, evidence-based rationales, guidance, and support to educate school administrators, parent-teacher associations, and school boards about the benefits of instituting a delay in start times as a potentially highly cost-effective countermeasure to adolescent sleep deprivation and sleepiness. In most districts, middle and high schools should aim for a starting time of no earlier than 8:30 AM. However, individual school districts also need to take average commuting times and other exigencies into

account in setting a start time that allows for adequate sleep opportunity for students. Additional information regarding opportunities, challenges, and potential solutions involved in changing school start times may be found at: <http://www.sleepfoundation.org/article/sleep-topics/school-start-time-and-sleep>; <http://schoolstarttime.org>.

5. Pediatricians should routinely provide education and support to adolescents and families regarding the significance of sleep and healthy sleep habits as an important component of anticipatory guidance and well-child care. In particular, pediatricians should endorse parental involvement in setting bedtimes and in supervising sleep practices, such as social networking and electronic media use in the bedroom; for example, pediatricians could recommend to parents that they establish a “home media use plan” and enforce a “media curfew.” Adolescents should be regularly queried regarding sleep patterns and duration and counseled about the risks of excessive caffeine consumption, misuse of stimulant medications as a countermeasure to sleepiness, and the dangers of drowsy driving.

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## REFERENCES

1. US Department of Health and Human Services. Healthy People 2020 sleep health

objectives. Available at: [www.healthypeople.gov/2020/topicsobjectives2020/](http://www.healthypeople.gov/2020/topicsobjectives2020/)

[objectiveslist.aspx?topicId=38](http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=38). Accessed June 26, 2013

2. Chen MY, Wang EK, Jeng YJ. Adequate sleep among adolescents is positively associated with health status and health-related behaviors. *BMC Public Health*. 2006;6:59
3. Eaton DK, McKnight-Eily LR, Lowry R, Perry GS, Presley-Cantrell L, Croft JB. Prevalence of insufficient, borderline, and optimal hours of sleep among high school students—United States, 2007. *J Adolesc Health*. 2010;46(4):399–401
4. Frey S, Balu S, Greusing S, Rothen N, Cajochen C. Consequences of the timing of menarche on female adolescent sleep phase preference. *PLoS ONE*. 2009;4(4):e5217
5. Carskadon MA, Acebo C, Jenni OG. Regulation of adolescent sleep: implications for behavior. *Ann N Y Acad Sci*. 2004;1021:276–291
6. Carskadon MA. Sleep in adolescents: the perfect storm. *Pediatr Clin North Am*. 2011;58(3):637–647
7. Crowley SJ, Acebo C, Fallone G, Carskadon MA. Estimating dim light melatonin onset (DLMO) phase in adolescents using summer or school-year sleep/wake schedules. *Sleep*. 2006;29(12):1632–1641
8. Carskadon MA, Acebo C, Richardson GS, Tate BA, Seifer R. An approach to studying circadian rhythms of adolescent humans. *J Biol Rhythms*. 1997;12(3):278–289
9. Jenni OG, Achermann P, Carskadon MA. Homeostatic sleep regulation in adolescents. *Sleep*. 2005;28(11):1446–1454
10. Taylor DJ, Jenni OG, Acebo C, Carskadon MA. Sleep tendency during extended wakefulness: insights into adolescent sleep regulation and behavior. *J Sleep Res*. 2005;14(3):239–244
11. Carskadon MA. The second decade. In: Guilleminault C, ed. *Sleeping and Waking Disorders: Indications and Techniques*. Menlo Park, CA: Addison Wesley; 1982:99–125
12. Carskadon MA, Acebo C, Seifer R. Extended nights, sleep loss, and recovery sleep in adolescents. *Arch Ital Biol*. 2001;139(3):301–312
13. Roenneberg T, Kuehnele T, Pramstaller PP, et al. A marker for the end of adolescence. *Curr Biol*. 2004;14(24):R1038–R1039
14. Cain N, Gradisar M. Electronic media use and sleep in school-aged children and adolescents: a review. *Sleep Med*. 2010;11(8):735–742
15. Knutson KL, Lauderdale DS. Sociodemographic and behavioral predictors of bed time and wake time among US adolescents aged 15 to 17 years. *J Pediatr*. 2009;154(3):426–430, 430.e1
16. Wolfson AR. Bridging the gap between research and practice: what will adolescents' sleep-wake patterns look like in the 21st century? In: Carskadon MA, ed. *Adolescent Sleep Patterns: Biological, Social, and Psychological Influences*. New York, NY: Cambridge University Press; 2002:198–219
17. Fredriksen K, Rhodes J, Reddy R, Way N. Sleepless in Chicago: tracking the effects of adolescent sleep loss during the middle school years. *Child Dev*. 2004;75(1):84–95
18. Dahl RE, Carskadon MA. Sleep and its disorders in adolescence. In: Ferber R, Krieger MH, eds. *Principles and Practices of Sleep Medicine in the Child*. Philadelphia, PA: WB Saunders Co; 1995:19–27
19. Carskadon MA, Wolfson AR, Acebo C, Tzischinsky O, Seifer R. Adolescent sleep patterns, circadian timing, and sleepiness at a transition to early school days. *Sleep*. 1998;21(8):871–881
20. National Sleep Foundation. 2006 Teens and sleep. Available at: [www.sleepfoundation.org/article/sleep-america-polls/2006-teens-and-sleep](http://www.sleepfoundation.org/article/sleep-america-polls/2006-teens-and-sleep). Accessed June 26, 2013
21. O'Brien EM, Mindell JA. Sleep and risk-taking behavior in adolescents. *Behav Sleep Med*. 2005;3(3):113–133
22. Giedd JN. Linking adolescent sleep, brain maturation, and behavior. *J Adolesc Health*. 2009;45(4):319–320
23. Holm SM, Forbes EE, Ryan ND, Phillips ML, Tarr JA, Dahl RE. Reward-related brain function and sleep in pre/early pubertal and mid/late pubertal adolescents. *J Adolesc Health*. 2009;45(4):326–334
24. Moore M, Kirchner HL, Drotar D, et al. Relationships among sleepiness, sleep time, and psychological functioning in adolescents. *J Pediatr Psychol*. 2009;34(10):1175–1183
25. Pasch KE, Laska MN, Lytle LA, Moe SG. Adolescent sleep, risk behaviors, and depressive symptoms: are they linked? *Am J Health Behav*. 2010;34(2):237–248
26. Soffer-Dudek N, Shahar G. Daily stress interacts with trait dissociation to predict sleep-related experiences in young adults. *J Abnorm Psychol*. 2011;120(3):719–729
27. Curcio G, Ferrara M, De Gennaro L. Sleep loss, learning capacity and academic performance. *Sleep Med Rev*. 2006;10(5):323–337
28. Pagel JF, Forister N, Kwiatkowiak C. Adolescent sleep disturbance and school performance: the confounding variable of socioeconomic status. *J Clin Sleep Med*. 2007;3(1):19–23
29. Wolfson AR, Carskadon MA. Understanding adolescents' sleep patterns and school performance: a critical appraisal. *Sleep Med Rev*. 2003;7(6):491–506
30. Wolfson AR, Spaulding NL, Dandrow C, Baroni EM. Middle school start times: the importance of a good night's sleep for young adolescents. *Behav Sleep Med*. 2007;5(3):194–209
31. Alfano CA, Zakem AH, Costa NM, Taylor LK, Weems CF. Sleep problems and their relation to cognitive factors, anxiety, and depressive symptoms in children and adolescents. *Depress Anxiety*. 2009;26(6):503–512
32. Lofthouse N, Gilchrist R, Splaingard M. Mood-related sleep problems in children and adolescents. *Child Adolesc Psychiatr Clin N Am*. 2009;18(4):893–916
33. Regestein Q, Natarajan V, Pavlova M, Kawasaki S, Gleason R, Koff E. Sleep debt and depression in female college students. *Psychiatry Res*. 2010;176(1):34–39
34. Gromov I, Gromov D. Sleep and substance use and abuse in adolescents. *Child Adolesc Psychiatr Clin N Am*. 2009;18(4):929–946
35. Bryant Ludden A, Wolfson AR. Understanding adolescent caffeine use: connecting use patterns with expectancies, reasons, and sleep. *Health Educ Behav*. 2010;37(3):330–342
36. Dahl RE. Biological, developmental, and neurobehavioral factors relevant to adolescent driving risks. *Am J Prev Med*. 2008;35(suppl 3):S278–S284
37. Hutchens L, Senserrick TM, Jamieson PE, Romer D, Winston FK. Teen driver crash risk and associations with smoking and drowsy driving. *Accid Anal Prev*. 2008;40(3):869–876
38. Verhulst SL, Schrauwen N, Haentjens D, et al. Sleep duration and metabolic dysregulation in overweight children and adolescents. *Arch Dis Child*. 2008;93(1):89–90
39. Gangwisch JE, Malaspina D, Babiss LA, et al. Short sleep duration as a risk factor for hypercholesterolemia: analyses of the National Longitudinal Study of Adolescent Health. *Sleep*. 2010;33(7):956–961
40. Hasler G, Buysse DJ, Klaghofer R, et al. The association between short sleep duration and obesity in young adults: a 13-year prospective study. *Sleep*. 2004;27(4):661–666
41. Cappuccio FP, Taggart FM, Kandala NB, et al. Meta-analysis of short sleep duration and obesity in children and adults. *Sleep*. 2008;31(5):619–626
42. Dexter D, Bijwadia J, Schilling D, Applebaugh G. Sleep, sleepiness and school start times: a preliminary study. *WMIJ*. 2003;102(1):44–46
43. Hansen M, Janssen I, Schiff A, Zee PC, Dubocovich ML. The impact of school daily schedule on adolescent sleep. *Pediatrics*. 2005;115(6):1555–1561



44. Carrell SE, Maghakian T, West JE. As from Zzzz's? The causal effect of school start time on the academic achievement of adolescents. *Am Econ J Economic Policy*. 2011;3(3):62–81
45. Edwards F. Early to rise: the effect of daily start times on academic performance. Working Paper, University of Illinois at Urbana-Champaign; 2010. Available at: <http://ssrn.com/abstract=1628693>. Accessed June 26, 2013
46. Hinrichs P. When the bell tolls: the effects of school starting times on academic achievement. *Educ Finance Policy*. 2011;6(4):1–22
47. Epstein R, Chillag N, Lavie P. Starting times of school: effects on daytime functioning of fifth-grade children in Israel. *Sleep*. 1998;21(3):250–256
48. Lufi D, Tzischinsky O, Hadar S. Delaying school starting time by one hour: some effects on attention levels in adolescents. *J Clin Sleep Med*. 2011;7(2):137–143
49. US Department of Education, National Center for Education Statistics, Schools and Staffing Survey. Public School Data File, 2011–12. Available at: [http://nces.ed.gov/surveys/sass/tables/sass1112\\_201381\\_s1n.asp](http://nces.ed.gov/surveys/sass/tables/sass1112_201381_s1n.asp). Accessed July 14, 2014
50. Wahlstrom K. Changing times: findings from the first longitudinal study of later high school start times. *NASSP Bull*. 2002;286(633):3–21
51. Wahlstrom K. Accommodating the sleep patterns of adolescents within current educational structures: an uncharted path. In: Carskadon M, ed. *Adolescent Sleep Patterns: Biological, Social, and Psychological Influences*. New York, NY, and Cambridge, England: Cambridge University Press; 2002:72–197
52. Danner F, Phillips B. Adolescent sleep, school start times, and teen motor vehicle crashes. *J Clin Sleep Med*. 2008;4(6):533–535
53. Owens JA, Belon K, Moss P. Impact of delaying school start time on adolescent sleep, mood, and behavior. *Arch Pediatr Adolesc Med*. 2010;164(7):608–614
54. Wahlstrom K, Dretzke B, Gordon M, Peterson K, Edwards K, Gdula J. *Examining the Impact of Later School Start Times on the Health and Academic Performance of High School Students: A Multi-Site Study*. Center for Applied Research and Educational Improvement. St Paul, MN: University of Minnesota; 2014
55. Htwe ZW, Cuzzone D, O'Malley MB, O'Malley EB. Sleep patterns of high school students before and after delayed school start time. *J Sleep Disord Res*. 2008;31(suppl):A74–A75
56. Cortes KE, Bricker J, Rohlfis C. The role of specific subjects in education production functions: Evidence from morning classes in Chicago public high schools. *The BE Journal of Economic Analysis & Policy*. 2010;12(1)
57. Hoyland A, Dye L, Lawton CL. A systematic review of the effect of breakfast on the cognitive performance of children and adolescents. *Nutr Res Rev*. 2009;22(2):220–243
58. Boergers J, Gable CJ, Owens JA. Later school start time is associated with improved sleep and daytime functioning in adolescents. *J Dev Behav Pediatr*. 2014;35(1):11–17
59. Fitzgerald CT, Messias E, Buysse DJ. Teen sleep and suicidality: results from the youth risk behavior surveys of 2007 and 2009. *J Clin Sleep Med*. 2011;7(4):351–356
60. Knippling R, Wang J. *Crashes and Fatalities Related to Driver Drowsiness/Fatigue*. Washington, DC: National Highway Traffic Safety Administration; 1994. Available at: [http://ntl.bts.gov/lib/jpodocs/repts\\_te/1004.pdf](http://ntl.bts.gov/lib/jpodocs/repts_te/1004.pdf). Accessed June 26, 2013
61. Vorona RD, Szklo-Coxe M, Wu A, Dubik M, Zhao Y, Ware JC. Dissimilar teen crash rates in two neighboring southeastern Virginia cities with different high school start times. *J Clin Sleep Med*. 2011;7(2):145–151
62. Wolfson AR, Carskadon MA. A survey of factors influencing high school start times. *NASSP Bull*. 2005;89(642):47–66
63. Jacob BA, Rockoff JE. *Organizing Schools to Improve Student Achievement: Start Times, Grade Configurations, and Teacher Assignments. The Hamilton Project*. Brookings Institute Discussion Paper. Washington, DC: Brookings Institute; 2011. Available at [www.brookings.edu/research/papers/2011/09/organization-jacob-rockoff](http://www.brookings.edu/research/papers/2011/09/organization-jacob-rockoff). Accessed June 26, 2013

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ADOLESCENT SLEEP WORKING GROUP, COMMITTEE ON ADOLESCENCE  
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*Pediatrics* 2014;134;642

DOI: 10.1542/peds.2014-1697 originally published online August 25, 2014;

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<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>School Health</b> <a href="http://www.aappublications.org/cgi/collection/school_health_sub">http://www.aappublications.org/cgi/collection/school_health_sub</a> <b>Current Policy</b> <a href="http://www.aappublications.org/cgi/collection/current_policy">http://www.aappublications.org/cgi/collection/current_policy</a> <b>Committee on Adolescence</b> <a href="http://www.aappublications.org/cgi/collection/committee_on_adolescence">http://www.aappublications.org/cgi/collection/committee_on_adolescence</a> <b>Council on School Health</b> <a href="http://www.aappublications.org/cgi/collection/council_on_school_health">http://www.aappublications.org/cgi/collection/council_on_school_health</a> <b>Adolescent Health/Medicine</b> <a href="http://www.aappublications.org/cgi/collection/adolescent_health_medicine_sub">http://www.aappublications.org/cgi/collection/adolescent_health_medicine_sub</a>
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## **School Start Times for Adolescents**

ADOLESCENT SLEEP WORKING GROUP, COMMITTEE ON ADOLESCENCE  
and COUNCIL ON SCHOOL HEALTH

*Pediatrics* 2014;134:642

DOI: 10.1542/peds.2014-1697 originally published online August 25, 2014;

The online version of this article, along with updated information and services, is  
located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/134/3/642>

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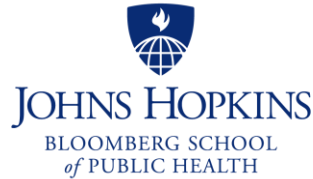


**Hager\_SB0468.pdf**

Uploaded by: Erin Hager

Position: FAV





**TESTIMONY IN SUPPORT OF SB0468**  
**Public Middle, High, and Charter Schools - Start Time for Instruction**

March 5, 2025

Dear Members of the Senate Education, Energy, and the Environment,

I strongly support SB0468– Public Middle, High, and Charter Schools - Start Time for Instruction, which would require public middle and high school to begin instruction not earlier than 8 a.m. and 8:30 a.m., respectively, and require each county board of education (or public charter school) to implement a public service campaign to raise awareness on sleep deprivation and later school start times.

Although I am writing this letter as a life-long Maryland resident and parent of children in Baltimore County Schools, I bring extensive experience through my profession as a Public Health researcher who has spent over 15 years studying policies that promote child health. As a nutritional epidemiologist, I often study approaches to promote healthy eating and physical activity among children. In recent years, my research has also incorporated healthy sleep behaviors. I have reviewed the literature on healthy school start times. The evidence is clear- policies that ensure school start times are after 8:00am for adolescents (or later) support student learning, breakfast consumption, tardiness and absenteeism, mental health, behavior issues... the list goes on. Adolescent brains are not wired for early mornings. This policy will put into place recommendations from the American Academy of Pediatrics, the Centers for Disease Control and Prevention, and many others. Several Maryland school districts have already adopted this policy, and it is time that the state of Maryland put into place a state-wide healthy school start times policy.

In addition to my profession, I have taken on service roles including serving as the elected chair of the Maryland State School Health Council (2018-present) and a governor-appointed member of the Baltimore County Board of Education (2000-2023). In 2023, the Maryland State School Health Council hosted a well-attended webinar on Healthy School Start Times that led to continued conversations about policy changes at the local and state level. I was thrilled when I heard about SB0468. This is an amazing opportunity for Maryland students. I regret that we did not tackle this topic during my time on the Baltimore County Board of Education. Although we had several conversations about moving it forward, we never formalized a policy. On a personal note, I still remember my worst grade in high school came my junior year at Lansdowne High School in Baltimore County. I barely passed Physics, despite it being taught by my favorite teacher and my tendency to do well in STEM classes. It was my first class of the day, and I simply could not stay awake. Circadian rhythms are real, and we need to ensure that schools are aligned to support our students have what they need to be successful.

In closing, I want to reiterate that healthy school start times are beneficial to students for many reasons, and **I ask the committee to make a favorable report on SB0468.**

Sincerely,

A handwritten signature in black ink, appearing to read "Erin R. Hager".

Erin R. Hager, PhD

Erin R. Hager, PhD Associate Professor  
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www.publichealth.jhu.edu | www.marylandschoolwellness.org | www.marylandpublicschools.org/MSSHCH

# **SB0468 Testimony - Heather Moore.pdf**

Uploaded by: Heather Moore

Position: FAV



## LOYOLA UNIVERSITY MARYLAND

— 1852 —

March 5, 2025

Dear Chair Benson and respected members of the Education, Energy, and the Environment Committee,

I am writing to express my strong support for **Senate Bill 0468: Public Middle, High, and Charter Schools – Start Time for Instruction** establishing guardrails where public middle schools and high schools commence instruction no earlier than 8:00 a.m. and 8:30 a.m., respectively, with provisions for waivers under certain circumstances. Thank you for the opportunity to provide written testimony on this critical issue.

My name is **Heather Moore**, I am the **Assistant Dean of the Loyola University Maryland School of Education**. I am also the proud parent of two children who attend **Baltimore City Public Schools** and have been a Maryland resident since 1997 (Baltimore City since 1998).

This legislation represents a critical step forward in aligning educational practices with the well-established research on adolescent health and academic performance.

Numerous studies have shown that later school start times contribute significantly to improved mental and physical health, higher academic achievement, and reduced rates of absenteeism among students. Adolescents experience a biological shift in their sleep-wake cycles, making it difficult for them to fall asleep before 11:00 p.m. and wake up early in the morning. By adjusting school start times, we can better support the natural sleep patterns of our students, enabling them to arrive at school rested and ready to learn.

The research is clear. Major health, medical, and education organizations—including the American Academy of Pediatrics, the Centers for Disease Control and Prevention, and the American Medical Association—recommend that middle and high schools start no earlier than **8:30 AM** to support student health, well-being, and academic success. This is not a new conversation in Maryland.

- In **2014**, the Maryland State Department of Education and the Department of Health released a **joint report** on the impact of early school start times.
- In **2016**, the Maryland Legislature passed **HB 83 – the Orange Ribbon Bill for Healthy School Hours**.
- Just this year, the **Abell Foundation** published a nearly [50-page report](#) detailing the benefits and feasibility of later start times in **Baltimore City Public Schools**.

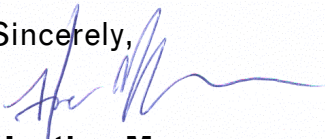
- Also this year numerous publications—including [The Baltimore Sun](#), [The Baltimore Banner](#), [Maryland Matters](#), and [TIME Magazine](#)—have highlighted the urgency of this issue.

Furthermore, the bill's requirement for a public service campaign to raise awareness about sleep deprivation and the benefits of later start times is equally vital. Educating families, educators, and the broader community will foster a supportive environment for this change, ensuring its successful implementation and maximizing its positive impact on student well-being and learning outcomes.

As a parent, a Baltimore City resident, and the Assistant Dean of the School of Education, I am deeply invested in the education and development of Maryland's youth. Maryland has long been a leader in education innovation and student-centered policies. **Senate Bill 0468 provides the necessary structure and support for MSDE and local school systems to implement healthy school start times statewide.** I urge you to support this bill. Prioritizing student health through evidence-based policies like adjusted start times is an investment in our future, empowering the next generation to thrive both inside and outside the classroom.

Thank you for considering this important legislation.

Sincerely,



**Heather Moore**  
**Assistant Dean, Loyola University Maryland School of Education**  
**Parent, Baltimore City Public Schools**

# **Start School Later.pdf**

Uploaded by: Katherine Buki

Position: FAV

I came to the field of sleep medicine with a concentration in physiologic psychology and neuroscience decades ago.

As a Board Certified Sleep Specialist, Boarded under the original ABSM and the new ABIM Sleep Medicine Boards, I have watched as the research in the field of Sleep medicine has made it perfectly clear:

Humans need enough sleep.

Children and adolescents need more sleep than adults.

Getting insufficient sleep has enormous negative impacts in normal daily function, health, growth, cognition, learning and function.

As a Sleep Specialist in clinical practice for 30 years, I know that circadian rhythms are real, and impact when humans are able to sleep. Trying to fall asleep in the hour or two before your circadian rhythm allows is difficult for all but the most sleep deprived. Telling a typical teenager, who needs 9 hours of sleep, and who must get up between 5 to 6 am for school to go to sleep at 8 or 9pm is not practical and doesn't work.

Teenagers who get insufficient sleep are more likely to have attendance problems, to drop out, to have attention issues, behavioral problems, depression and self-harm. They are more likely to have car crashes and athletic injuries. They are less likely to thrive and even to do well on standardized testing, and fortunately, we now have the research to show that these trends reverse when kids are allowed the opportunity to get more sleep. And they DO get more sleep when they are allowed a later school start time.

As the past president of the Maryland Sleep Society, I know that this issue is at the forefront of our concerns regarding bringing the benefits of healthy sleep to everyone in our community.

And as a mother of two athletic and academically successful young adults, I can tell you that the consequences of starting high school at 7:15 include chronic exhaustion. Watching your kid come home at the end of the week, and sleep until they have to get up for the next meet, game or practice, only to have an even harder time falling asleep on Sunday nights is wrenching.

It is possible to realign our resources to allow our children to get more adequate sleep, and results across our country have shown the clear benefits. I strongly support legislation in our state to start school later.

Sincerely,

Katherine S. Maul Buki, MD, FCCP, FAASM

# **SSL MD SB468- Support.pdf**

Uploaded by: Lisa VanBuskirk

Position: FAV



**Maryland | Statewide**

health, safety and equity in education

March 3, 2025

Good Afternoon Chair Feldman, Vice Chair Kagan, and Members of the Education, Environment, and Energy Committee,

I am Lisa VanBuskirk, Chapter Leader of Start School Later Anne Arundel County and Maryland. Thank you for the opportunity to provide written testimony **in support of SB-468: Public Middle, High, and Charter Schools - Start Time for Instruction.**

I would like to highlight **the following Maryland organizations support this legislation in addition to Start School Later** and its Maryland Chapters in Anne Arundel County, Baltimore County, Baltimore City, Howard County, Montgomery Count, and Statewide: **FreeState PTA, Maryland Sleep Society, MedChi Marland State Medical Society, and the Maryland Chapter of the American Academy of Pediatrics.** Late last week, the **Maryland Sleep Society signed a [Joint Resolution on Healthy, Safe, and Age-Appropriate School Hours Legislation in Maryland](#)** with Start School Later (Enclosure 1).

Following the 2016 passage of then Delegate (now Lieutenant Governor) Aruna Miller's *HB 83- Orange Ribbon Bill for Healthy School Hours*, I created a state-wide chapter of Start School Later to track the progress of school start times. By my estimates (the Maryland State Department of Education does not track school start times), **the average middle school start time is 8:17 a.m., the average high school start time is 7:57 a.m., and the average start time of charter middle and high schools is 8:21 a.m.**<sup>1</sup> There are many individual middle and high schools, public and charter, that already meet the requirements of this bill. One school system Anne Arundel County fully meets this bill. With just 10 minutes of modification to Garrett County's high school start times, they would meet it as well. (Enclosures 2, 3, 4, 5). Frederick County's workgroup was to start last month and Harford County initiated a conversation on school hours on February 24<sup>th</sup>. Howard County, which adjusted school hours last year, could further adjust start times at no additional cost, according to the Superintendent's statement on February 10<sup>th</sup>.

Despite the ever-increasing research on the benefits of safer, healthier, and age-appropriate school hours and encouragement through Maryland legislation in 2014 and 2016, **relying on local control and local advocacy efforts has resulted in limited success in Maryland.** It has taken decades of advocacy, hard fought election of supportive Boards of Education members, and nearly as many steps backwards as forwards to advance implementation plans, despite the well documented benefits. **When school systems are unable to act, the state of Maryland has an obligation to help them.**

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<sup>1</sup> <https://www.startschoollater.net/md---statewide.html>



The 2014 joint report by the Maryland State Department of Education and Department of Health was prescient in stating,

***“...in preserving the status quo whereby school start times are a matter for each local jurisdiction, the state risks letting local resistance trump a strong body of scientific evidence that sleep is critical to health and academic achievement.”***<sup>2</sup>

Opponents focus on assumptions of increased logistics expenses, but ignore the current cost to student physical and mental health, safety, attendance, graduation rates, academics, and the return on investment in greater lifetime earnings as calculated by a 2017 Rand report.<sup>3</sup>

It is worth noting that both Anne Arundel County (school year 2022-2023) and Howard County (school year 2023-2024) implemented new school hours at zero additional cost. Initial transportation estimates are frequently inflated and assume existing systems are already perfect. Anne Arundel County went from an estimate of \$8-9 million in 2014, to cost neutral in 2022, because there was so much waste in the transportation system, as well as incorrect assumptions and perceptions about operations, including legacy ways of bus routing using post-it notes. The estimate cited in the Fiscal Note, conflicts with initial estimates presented to the Frederick County Board of Education in July 2024.<sup>4</sup> Other Maryland school systems may find cost neutral solutions, such as St Mary’s County noted in the Fiscal Note.

What helped both Anne Arundel and Howard County implement safer, healthier, and more age-appropriate school start times was the use of outside transportation experts to assist the school system in thinking through their transportation policies and operations, as well as teach them to fully use their transportation routing software.<sup>5</sup> As recently as 2021, the Office of Legislative Audits noted that 18 of 24 school systems were not fully using their school bus routing software.<sup>6</sup> (Use of school bus routing software has been recommended in Maryland since the *1975 Report of the Task Force to Review the Public School Pupil Transportation Program*.<sup>7</sup>) **Transportation is not the biggest obstacle to new school hours. Fear of change is the largest obstacle.**

There are many logistical solutions to implement new school hours, but current staff frequently lack the necessary tools, equipment, expertise, experience, or training to untie the tangled knots of school logistics. The overreliance on local school systems to enact new school hours is a barrier to improvement in Maryland students’ physical and mental health, safety, and academics. **School systems need legislative assistance in setting a floor for the earliest start times and eliminating the fear of change.** Just as the General Assembly sets the floor for minimum total hours of school and/or minimum number of school days, so to, can the General Assembly set a minimum school start time.

There is flexibility within the law for implementation, to allow school systems to make decisions appropriate for their community. Elementary school start times are not addressed in the legislation,

<sup>2</sup> [http://www.startschoollater.net/uploads/9/7/9/6/9796500/maryland\\_dhmf\\_school\\_start\\_time\\_report\\_123114.pdf](http://www.startschoollater.net/uploads/9/7/9/6/9796500/maryland_dhmf_school_start_time_report_123114.pdf)

<sup>3</sup> [https://www.rand.org/pubs/research\\_reports/RR2109.html](https://www.rand.org/pubs/research_reports/RR2109.html) and [https://www.washingtonpost.com/opinions/lets-end-the-annual-fall-march-of-the-zombies-in-maryland/2018/09/28/5daad216-b1f5-11e8-9a6a-565d92a3585d\\_story.html](https://www.washingtonpost.com/opinions/lets-end-the-annual-fall-march-of-the-zombies-in-maryland/2018/09/28/5daad216-b1f5-11e8-9a6a-565d92a3585d_story.html)

<sup>4</sup> [https://www.fredericknewspost.com/news/politics\\_and\\_government/levels\\_of\\_government/county/fcps\\_board\\_of\\_education/board-of-education-creates-work-group-to-study-school-start-times/article\\_82da745c-de8e-5c13-a6ec-890fe148c43e.html](https://www.fredericknewspost.com/news/politics_and_government/levels_of_government/county/fcps_board_of_education/board-of-education-creates-work-group-to-study-school-start-times/article_82da745c-de8e-5c13-a6ec-890fe148c43e.html)

<sup>5</sup> [https://www.startschoollater.net/uploads/9/7/9/6/9796500/01\\_13\\_2021\\_school\\_start\\_times\\_br.pdf](https://www.startschoollater.net/uploads/9/7/9/6/9796500/01_13_2021_school_start_times_br.pdf) and <https://www.aacps.org/cms/lib/MD02215556/Centricity/Domain/280/Transportation%20Services%20Comprehensive%20Evaluation%201-8-20.pdf>

<sup>6</sup> <https://www.ola.state.md.us/Search/Report?keyword=&agencyId=&dateFrom=&dateTo=&reportTypeId=4>

<sup>7</sup> [https://www.startschoollater.net/uploads/9/7/9/6/9796500/1975\\_msde\\_transportation\\_report.pdf](https://www.startschoollater.net/uploads/9/7/9/6/9796500/1975_msde_transportation_report.pdf)

allowing communities and school systems the flexibility to determine appropriate elementary school start times. In Maryland, elementary schools start as early as 7:30 and as late as 9:30. Safety concerns about elementary students starting too early or releasing too late, should already be part of the conversation in each school system, in addition to discussions of the research-based recommendations on middle and high school start times.

Our school systems showed incredible creativity and flexibility during the uncertainty of the Covid-19 pandemic. Things that were not thought to be possible, were implemented, evaluated, and continuously adjusted. The same creativity and analysis can be applied to age-appropriate school hours. With several years to implement, school systems will identify barriers to implementation, but I am confident they can work with their communities to address concerns and overcome hurdles. The option exists within the legislation to seek a waiver from the State Board of Education, if conditions exist that a school system cannot overcome. **A wealth of resources and expertise exist within Maryland to assist school systems with implementation. Four school superintendents in Anne Arundel, Howard, Montgomery, and Talbot Counties have experience implementing new bell times in their current or previous job.** In a recent Baltimore Banner article about Baltimore City's reliance on MTA buses for transportation, MSDE was quoted as supporting later bell times.<sup>8</sup>

If both Florida and California legislations can agree that school start time have become the responsibility of the state government (and it may be one of the rare things on which those two states agree), as well as the number of other states considering similar legislation in 2024 and 2025, including Pennsylvania, New York, Connecticut, New Hampshire, Nevada, Louisiana, and Oregon to name a few, then Maryland's legislators can and should, assume similar responsibilities when local school boards fail to act in the interest of student health and safety.

**I ask for a favorable report on SB-468: Public Middle, High, and Charter Schools - Start Time for Instruction.**



**Lisa VanBuskirk, P.E., CDR USCGR (Retired),**

Chapter Leader, Start School Later Maryland | Start School Later Anne Arundel County

Enclosure (1): Joint Resolution on Healthy, Safe, and Age-Appropriate School Hours Legislation in Maryland

Enclosure (2): 2024-2025 Public School Hours in Maryland Compared to Orange Ribbon for Healthy School Hours

Enclosure (3): Maryland Public High School Start Time

Enclosure (4): Maryland Public Middle School Start Time

Enclosure (5): Maryland Charter School Start Time

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<sup>8</sup> <https://www.thebaltimorebanner.com/education/k-12-schools/baltimore-city-school-buses-HF3HHWC67ZF7BCRJ66WMB3VWVDI/>



**Maryland | Statewide**

health, safety and equity in education

## **Joint Resolution on Healthy, Safe, and Age-Appropriate School Hours Legislation in Maryland**

**WHEREAS**, To protect their lives and well-being, every Maryland public school student requires sufficient sleep for maximum health and wellness. Research shows that adolescents require between 8.5 and 9.5 hours of sleep per night, yet more than three-quarters of Maryland’s high school students and over half of Maryland’s middle school students average fewer than 8 hours of sleep on school nights; and

**WHEREAS**, Natural sleep-wake rhythms change as children grow into adolescence, such that adolescents require an increased amount of sleep, typically have difficulty falling asleep much before 11:00 PM, and function optimally if permitted to remain asleep until 8:00 AM or later. Early middle and high school start times and student commutes to schools necessitate waking hours earlier than optimal; and

**WHEREAS**, Studies have demonstrated that the duration and timing of sleep is positively correlated with school outcomes, including attendance and graduation rates for secondary school students, but early school start times can curtail adolescents’ sleep, thereby negatively affecting their ability to learn and remain in school; and

**WHEREAS**, Research shows that insufficient and irregular sleep imperils adolescents by heightening risks for a multiplicity of threats to their health, safety, and well-being including increased risk for car crashes, athletic injuries, depression and suicidality; harmful behaviors, including use of illicit drugs, criminal behaviors and violence, and increased risk for obesity, cardiovascular disease, metabolic dysfunction, and other physical health problems; and

**WHEREAS**, Evidence strongly indicates that earlier school start times are a key but modifiable contributor to insufficient sleep, as well as to natural sleep rhythm disruption; and

**WHEREAS**, Evidence demonstrates that implementation of later school start times for adolescents affords students the opportunity to obtain sufficient levels of sleep, thereby improving physical and mental health, safety, school performance, and quality of life; and can be achieved with no change in the number of hours spent engaged in athletics, extracurricular activities, and homework after the schedule change; and

**WHEREAS**, The American Academy of Pediatrics, American Medical Association, American Academy of Sleep Medicine, National Sleep Foundation, U.S. Centers for Disease Control, National Education Association, National Parent Teacher Association, and other healthcare and education organizations support starting middle and high schools at age-appropriate hours, 8:30 a.m. or later; and

**WHEREAS**, Maryland should continue to lead the Nation in addressing the adolescent school start times, building on the [resolution](#) in 1998 by MedChi, the Maryland State Medical Society and the State’s landmark legislation in 2014 ([House Bill 883](#)) and 2016 ([House Bill 39](#)) on school start times; and

**WHEREAS,** In the decade since the passage of statewide legislation encouraging later bell times, despite the ever-increasing research on the benefits of later bell times and three decades of local advocacy, only two school systems (Anne Arundel County in 2022 and Howard County in 2023) have prioritized student health and safety by implementing age-appropriate school bell times, which were implemented with no additional transportation costs; and

**WHEREAS,** In the report pursuant to House Bill 883, “[\*Study of Safe and Healthy School Hours for Maryland Public Schools\*](#)”, jointly published in 2014 by the Maryland Department of Health and the Maryland State Department of Education which stated, “The consequences of changing school start times are unavoidable, but they can be ameliorated with proper planning and preparation. Any consideration of a statewide mandate for a later school start time must consider the unique needs of each of the 24 local jurisdictions. However, in preserving the status quo whereby school start times are a matter for each local jurisdiction, the state risks letting local resistance trump a strong body of scientific evidence that sleep is critical to health and academic achievement;” and

**WHEREAS,** The state of Maryland is obligated to act in the interest of the health, safety, and welfare of its students, a statewide guardrail limiting how early classes begin would empower Local Education Agencies to prioritize the best interests of students while setting schedules that meet the needs of local communities.

**THEREFORE, BE IT RESOLVED** that the undersigned organization supports statewide legislation setting school start times aligned with the recommendations of the major healthcare organizations.

Organization Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email: \_\_\_\_\_

Representative’s Name: \_\_\_\_\_

Title/Role with Organization: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

By signing this document, you imply that you have the authority to represent the listed organization.

If your organization would like its logo included in the final signature page and [website](#), please email the logo to the email address listed below.

Please email completed form to:  
Start School Later Maryland: [sslaaco@gmail.com](mailto:sslaaco@gmail.com)



# 2024-2025 Public School Hours in Maryland

**RED** = (1) Middle and high school start times that do not meet the American Academy of Pediatrics recommendation that such schools *not* start before 8:30 a.m. and (2) the elementary school start time is earlier than 8 a.m.

**GREEN** = Start times of 8:30 a.m. or later for middle and high schools and/or elementary school starts of 8 a.m. or later, per the Orange Ribbon for Health School Hours.

\* The Orange Ribbon for Healthy School Hours program was signed into law in April 2016. The certification has three levels, from lowest to highest: Limited, Honorable Mention, and Commended.

County/School District	HS start time or start ranges	MS start time or start ranges	ES start time or start ranges	Does the district currently qualify for a Healthy School Hours Orange Ribbon Recognition?*
Allegany County	7:40	7:40	8:00 to 8:45	
Anne Arundel County	8:30	9:15	8:00 to 8:30	Yes! Eligible for Commended (the highest level)! Implemented in 2022-2023 school year
Baltimore City	7:30 to 9:00	7:30 to 9:15	7:30 to 9:15	Moved a number of schools earlier in the 2022-2023 school year.
Baltimore County	7:10 to 7:45	7:40 to 8:30	8:35 to 9:20	
Calvert County	7:25 to 7:40	7:22 to 8:25	8:30	
Caroline County	7:50	7:40	9:00	
Carroll County	7:30	8:25 to 8:35	7:45 to 9:30	
Cecil County	7:40	7:50-8:10	9:00	
Charles County	7:25 to 8:05	7:45 to 8:50	8:30 to 9:30	
Dorchester County	7:50 to 8:15	7:55 to 8:05	8:30 to 9:00	
Frederick County	7:30	8:00	8:20 to 9:00	
Garrett County	8:20	8:30	8:15 to 8:40	Yes! Eligible for Honorable Mention
Harford County	7:30	8:15	9 to 9:30	
Howard County	7:50	7:50 to 8:30	8:40 to 9:25	Yes! Eligible for Honorable Mention. Moved school hours in 2023-2024 school year. but there's still more work to do
Kent County	7:35	7:40	9:00	
Montgomery County	7:45	7:55 to 8:15	9:00 to 9:25	Yes, Limited or Honorable Mention! The district moved start times later than they were before in 2015, but there's still more work to do.
Prince George's County	7:30 to 9:30	7:30 to 9:30	7:30 to 9:15	Moved a number of schools (including nearly all high schools) earlier in the 2024-2025 school year.
Queen Anne's County	7:35	7:45	7:30 to 8:55	
Somerset County	7:30	7:20	8:00	
St Mary's County	8:00	7:20 to 8	8:25 to 9:00	
Talbot County	7:45 to 7:50	7:45 to 7:50	8:40	
Washington County	8:35- 9:05	7:20 to 8:35	7:30 to 9:15	
Wicomico County	7:45	7:45 to 9:15	8:15 to 9:15	
Worcester County	7:48 to 8:07	7:30 to 8:00	7:45 to 8:30	

# Maryland Public Schools High School Start Times: 2024-2025 School Year

**The American Academy of Pediatrics recommends that middle and high schools start at 8:30 a.m. or later.**

The American Medical Association, American Psychological Association, American Academy of Child & Adolescent Psychiatry, the National Association of School Nurses, the Education Commission of the States and the National PTA agree.

As detailed here, the vast majority of Maryland public high schools open well before 8:30 a.m.

Bus pick-ups starting before 6 a.m. require students to wake at hours long before what is safe, healthy, and developmentally-appropriate for their still-growing brains and bodies. Teaching sleep-deprived teens challenging academics, including AP courses, in the 7 a.m. hour is both cruel and undermining.

With such schedules, teenagers have to be in bed and *asleep* at 8 or 9 p.m. in order to get the amount of sleep they need. This just isn't possible — for biological and logistical reasons. When students oversleep and miss the bus, many wind up being extremely tardy or entirely absent from school due to having no transportation alternatives.

## ALLEGANY COUNTY

Mountain Ridge	7:40
Allegany	7:40
Fort Hill	7:40
Center for Career/Technical Education	7:30

## ANNE ARUNDEL COUNTY

Annapolis	8:30
Arundel	8:30
Broadneck	8:30
Chesapeake	8:30
Glen Burnie	8:30
Meade Senior	8:30
Northeast	8:30
North County	8:30
Old Mill	8:30
Severna Park	8:30
Southern	8:30
South River	8:30
Phoenix Academy	9:15
Chesapeake Science Point Charter	8:20

## BALTIMORE CITY

Excel Academy At Francis M. Wood	9:00
Benjamin Franklin at Masonville Cove	8:00
Claremont	9:15
Bard HS Early College	8:00
City Neighbors	9:00
Patterson	8:00
Forest Park	7:30
Western	8:00
Edmondson-Westside	8:00
Baltimore Polytechnic Institute	8:00
Mergenthaler Vo-Tech	7:45
Paul Laurence Dunbar	8:00
Digital Harbor	7:30
Reginald F. Lewis	8:00
Frederick Douglass	8:00
Carver Vo-Tech	7:45
Baltimore City College	7:30

Williams S Baer School	9:15
Reach! Partnership School	8:45
Bluford Drew Jemison STEM Academy	8:00
Baltimore Leadership Young Women	8:45
Baltimore Collegiate School for Boys	7:30
Baltimore Design School	8:45
Baltimore School for the Arts	8:00
National Academy Foundation	8:45
New Era Academy	7:30
Vivien T. Thomas Medical Arts Academy	7:30
Acad. for College/Career Exploration	8:00
Augusta Fells Savage Inst. Visual Arts	8:00
Coppin Academy	8:00
Renaissance Academy	7:45
Career Academy	9:00
Success Academy	8:45
Youth Opportunity Academy	9:00

## BALTIMORE COUNTY

Catonsville	7:45
Dundalk	7:45
Chesapeake	7:45
Dulaney	7:45
Eastern Technical	7:45
Franklin	7:40
Hereford	7:40
Kenwood	7:45
Landsdowne	7:45
Loch Raven	7:45

New Town	7:45
Overlea	7:45
Owings Mills	7:45
Parkville	7:45
Patapsco	7:45
Pikesville	7:40
Perry Hall	7:45
Patapsco	7:45
Randallstown	7:25
Rosedale Center	7:00
Sollers Point Technical	7:45
Sparrows Point	7:45
Towson	7:40
Woodlawn	7:30

## CALVERT COUNTY

Calvert	7:40
Career and Technology Academy	7:40
Northern	7:25
Patuxent	7:25
Huntingtown	7:25

## CAROLINE COUNTY

Colonel Richardson	7:43
North Caroline	7:50
Caroline Career & Technology Center	7:50

## CARROLL COUNTY

Century	7:30
Francis Scott Key	7:30
Liberty	7:30
Manchester Valley	7:30
South Carroll	7:30
Westminster	7:30



# Maryland Public Schools High School Start Times: 2024-2025 School Year

Winters Hill	7:30	Tuscarora	7:30	Bowie	7:30
Carroll Springs	8:35	Urbana	7:30	Central	7:30
Gateway	7:30	Walkersville	7:30	Charles Flowers	7:30
		LYNX at Frederick	8:54	Crossland	7:30
<b><u>CECIL COUNTY</u></b>		<b><u>GARRETT COUNTY</u></b>		Dr. Henry A. Wise, Jr	8:30
Perryville	7:40	Northern	8:25	Duval	8:30
North East HS	7:40	Southern	8:25	Eleanor Roosevelt	8:30
Bohemia Manor	7:45			Fairmont Heights	8:30
Elkton	7:30	<b><u>HARFORD COUNTY</u></b>		Frederick Douglass	7:30
Cecil County School of Technology	8:00	Aberdeen	7:30	Friendly	7:30
Rising Sun	7:45	Bel Air	7:30	Gwynn Park	7:45
		C. Milton Wright	7:30	High Point	7:30
<b><u>CHARLES COUNTY</u></b>		Edgewood	7:30	International HS Langly Park	7:30
Henry E Lackey	7:25	Fallston	7:30	International HS Largo	9:30
La Plata	7:30	Harford Technical	7:30	Largo	7:30
McDonough	7:30	Harve de Grace	7:30	Laurel	8:30
North Point	8:05	Joppatown	7:30	Non-Traditional Program North	9:30
Thomas Stones	7:30	North Harford	7:30	Non-Traditional Program South	9:30
Westlake	7:30	Patterson Mill	7:30	Northwestern	8:30
St Charles	7:25			Oxon Hill	9:30
Robert D. Stethem Educational Center	7:50	<b><u>HOWARD COUNTY</u></b>		Parkdale	7:30
		Atholton HS	7:50	Potomac	7:30
<b><u>DORCHESTER COUNTY</u></b>		Centennial HS	7:50	Suitland	8:30
Cambridge-South Dorchester	8:15	Glenelg HS	7:50	Surrattsville	8:30
North Dorchester	7:50	Hammond HS	7:50		
		Howard HS	7:50	<b><u>QUEEN ANNE'S COUNTY</u></b>	
<b><u>FREDERICK COUNTY</u></b>		Long reach HS	7:50	Queen Anne's County	7:35
Brunswick	7:30	Marriotts Ridge HS	7:50	Kent Island	8:00
Catoctin	7:30	MT Hebron HS	7:50		
Frederick	7:30	Oakland Mills HS	7:50	<b><u>SOMERSET COUNTY</u></b>	
Governor Thomas Johnson	7:30	Reservoir HS	7:50	Washington	7:30
Linganore	7:30	River Hill HS	7:50	Crisfield	7:30
Middletown	7:30	Wilde Lake HS	7:50		
Oakdale	7:30	Applications & Research Lab	7:50	<b><u>PRINCE GEORGE'S COUNTY</u></b>	
				Academy of Health Science PGCCC	9:30
				Bladensburg	9:30
				<b><u>ST MARY'S COUNTY</u></b>	

# Maryland Public Schools High School Start Times: 2024-2025 School Year

Chopticon	8:00
Great Mills	8:00
Leonardtown	8:00

## TALBOT COUNTY

Easton	7:45
St Michaels	7:50

## WASHINGTON COUNTY

Barbara Ingram School for the Arts	9:05
Boyd J Michael, III Technical	9:00
Boonsboro	8:35
Clear Spring	8:35
Hancock	8:35
North Hagerstown	8:35
Smithsburg	8:35
South Hagerstown	8:35
Williamsport	8:35

## WICOMICO COUNTY

James M. Bennett	7:45
Mardela MS/HS	7:45
Parkside	7:45
Wicomico	7:45

## WORCESTER COUNTY

Pocomoke	8:00
Snow Hill	8:07
Steven Decatur	8:00



# Maryland Public Schools Middle School Start Times: 2024-2025 School Year

The **American Academy of Pediatrics** recommends that middle and high schools start at 8:30 a.m. or later.

The **American Medical Association, American Psychological Association, American Academy of Child & Adolescent Psychiatry, the National Association of School Nurses, the Education Commission of the States and the National PTA** agree.

As detailed here, many of Maryland public middle schools open well before 8:30 a.m. There are also quite a few that begin after 8:30 a.m.

Early bus pick-ups require students to wake at hours long before what is safe, healthy, and developmentally-appropriate for their still-growing brains and bodies. Teaching sleep-deprived adolescents challenging academics, in the 7 a.m. hour is both cruel and undermining.

With such schedules, adolescents have to be in bed and *asleep* at 8 or 9 p.m. in order to get the amount of sleep they need. This just isn't possible — for biological and logistical reasons. When students oversleep and miss the bus, many wind up being extremely tardy or entirely absent from school due, when they lack transportation alternatives.

## ALLEGANY COUNTY

Braddock MS	7:40
Mount Savage (K-8)	7:30
Washington MS	7:40
Westmar MS	7:40

## ANNE ARUNDEL COUNTY

Annapolis MS	9:15
Arundel MS	9:15
Bates MS	9:15
Brooklyn Park MS	9:15
Central MS	9:15
Chesapeake Bay MS	9:15
Corkran MS	9:15
Crofton MS	9:15
Lindale MS	9:15
MacArthur	9:15
Magothy River MS	9:15
Marley MS	9:15
Meade MS	9:15
North East MS	9:15
Old Mill MS North	9:15
Old Mill MS South	9:15
Severn River MS	9:15
Severna Park MS	9:15
Southern MS	9:15
Phoenix Academy	9:15
Chesapeake Science Point Charter	8:20

## BALTIMORE CITY

Academy for College and Career Exploration	8:00
Arlington ES/MS	9:15
Armistead Gardens ES/MS	7:45
Baltimore Collegiate School for Boys	8:30
Baltimore Design School	8:45
Baltimore International Academy (K-8)	7:30
Baltimore International Academy West (K-8)	9:00

Baltimore Leadership School for Young Women	8:45
Baltimore Montessori Public Charter	8:00
Barclay ES/MS	9:00
Bay Brookes ES/MS	9:00
Beechfield ES/MS	8:00
Bluford Drew Jemison STEM Academy West	8:00
Booker T. Washington MS	8:45
Cherry Hill ES/MS	8:45
City Neighbors Charter School	8:00
City Neighbors Hamilton	8:00
City Springs ES/MS	8:55
Claremont	9:15
Collington Square ES/MS	9:15
Commodore John Rodgers ES/MS	9:00
ConnXions: Community Based Art School	9:00
Cross Country ES/MS	9:15
The Crossroads School	8:45
Curtis Bay ES/MS	7:30
Dickey Hill ES/MS	7:30
Dr. Nathan A. Pitts-Ashburton ES/MS	8:00
Elmer A Henderson: A Johns Hopkins Partnership School	9:00
Empowerment Academy	7:45
Excel Academy at Francis M. Wood	9:00
Fallstaff ES/MS	7:30
Forth Worthington ES/MS	7:45
Francis Scott Key ES/MS	9:00
Franklin Square ES/MS	7:45
Garrett Heights ES/MS	9:00

Glenmount ES/MS	8:00
Graceland Park-O'Donnell Heights ES/MS	7:30
Hamilton ES/MS	7:30
Hampden ES/MS	7:30
Hampstead Hill Academy	8:00
Harlem Park ES/MS	8:00
Hazelwood ES/MS	8:00
Highlandtown ES/MS No 215	8:00
Highlandtown ES/MS No 237	8:00
Holabrid ES/MS	9:00
James McHenry ES/MS	9:00
John Ruhrah ES/MS	7:45
Joseph C. Briscoe Academy	7:30
Katherine Johnson Global Academy (3-8)	8:00
KIPP Harmony Academy	7:30
Lakeland ES/MS	8:45
Leith Walk ES/MS	8:00
Lillie May Carroll Jackson School	8:00
Lois T. Murray ES/MS	9:15
Maree G. Farring ES/MS	8:00
Margaret Brent ES/MS	7:45
Midtown Academy	8:00
Montebello ES/MS	7:45
Morrell Park ES/MS	7:30
Mount Royal ES/MS	8:00
National Academy Foundation	8:45
New Song Academy	8:45
North Bend ES/MS	9:00
Patterson Park Public Charter School	7:45
Pimlico ES/MS	7:45
Roland Park ES/MS	8:00
Rosemont ES/MS	7:45

# Maryland Public Schools Middle School Start Times: 2024-2025 School Year

Southwest Baltimore Charter School	8:45	Parkville MS	8:10	<b><u>CECIL COUNTY</u></b>		West Frederick MS	8:00
Stadium School	7:45	Perry Hall MS	8:20	Bohemia Manor MS	7:40	Windsor Knolls MS	8:00
Tench Tilghman ES/MS	8:00	Pine grove MS	8:10	Cherry Hill MS	7:40	<b><u>GARRETT COUNTY</u></b>	
Thomas Jefferson ES/MS	8:00	Ridgely MS	8:15	Elkton MS	7:40	NorthernMS	8:30
Thomas Johnston ES/MS	7:45	Rosedale Center	7:00	North East HS	7:40	SouthernMS	8:30
Turnbridge Public Charter School	7:45	Southwest Academy	8:05	Perryville MS	7:40	<b><u>HARFORD COUNTY</u></b>	
Vanguard Collegiate MS	7:45	Sparrows Point MS	8:05	Rising Sun MS	7:40	Aberdeen MS	8:15
Violetville ES/MS	7:30	Stemmers Run MS	8:25	<b><u>CHARLES COUNTY</u></b>		Bel Air MS	8:15
Walter P. Carter ES/MS	9:15	Sudbrook Magnet MS	8:30	Theodore G. Davis	8:50	Edgewood MS	8:15
Waverly ES/MS	8:45	Windsor Mill MS	8:30	John Hanson MS	8:30	Fallston MS	8:15
Westport Academy	9:15	Woodlawn MS	8:15	Mathew Henson MS	8:30	Harve de Grace MS	8:15
Williams S. Bear School	9:15	<b><u>CALVERT COUNTY</u></b>		Mattawomen MS	8:25	Magnolia MS	8:15
Woodhome ES/MS	7:30	Calvert MS	7:22	Piccowaxen MS	7:45	North Harford MS	8:15
<b><u>BALTIMORE COUNTY</u></b>		Mill Creek MS	8:05	General Smallwood MS	8:40	Patterson Mill MS	8:15
Arbutus MS	8:20	Northern MS	7:22	Milton M. Somers MS	7:30	Southampton MS	8:15
Catonsville MS	8:15	Plum Point MS	8:10	Benjamin Stoddert MS	8:30	<b><u>HOWARD COUNTY</u></b>	
Cockeysville MS	8:00	Southern MS	8:25	<b><u>DORCHESTER COUNTY</u></b>		Bonnie Branch MS	8:30
Crossroads Center	9:30	Windy Hill MS	8:07	Mace's Lane MS	7:50	Burleigh Manor MS	8:30
Deep Creek MS	8:15	<b><u>CAROLINE COUNTY</u></b>		North Dorchester MS	7:55	Clarksville MS	7:50
Deer Park MS Magnet	8:10	Lockerman MS	7:40	South Dorchester (K-8)	9:00	Dunloggin MS	7:50
Dumbarton MS	8:15	Colonel Richardson MS	7:40	<b><u>FREDERICK COUNTY</u></b>		Elkridge Landing MS	7:50
Dundalk MS	8:15	<b><u>CARROLL COUNTY</u></b>		Ballenger Creek MS	7:30	Ellicott Mills MS	8:30
Franklin MS	7:50	East MS	8:35	Brunswick MS	8:00	Folly Quarter MS	7:50
General John Stricker MS	8:25	Mt. Airy MS	8:25	Crestwood MS	8:00	Glenwood MS	8:30
Golden Ring MS	8:10	North Carroll MS	8:30	Governor Thomas Johnson MS	7:50	Hammond MS	8:30
Hereford MS	7:40	Northwest MS	8:25	Middletown MS	8:00	Harper's Choice MS	8:30
Holabird MS	8:15	Shiloh MS	8:25	Monocacy MS	8:00	Lake Elkhorn MS	8:30
Lansdowne MS	8:05	Sykesville MS	8:25	New Market MS	8:00	Lime Kiln MS	8:30
Loch Raven Technical Academy	8:15	West MS	8:35	Oakdale MS	8:12	Mayfield Woods MS	8:30
Meadowood Education Center	8:00	Carroll Springs K-12	8:35	Thurmont MS	7:25	Mount View MS	8:30
Middle River MS	8:15	Gateway 6-12	7:35	Urbana MS	8:00	Murray Hill MS	8:30
Northwest Academy of Health Science	8:10			Walkerville MS	8:00	Oakland Mills MS	7:50

# Maryland Public Schools Middle School Start Times: 2024-2025 School Year

Patapsco MS		8:30	Shady Grove MS	8:15	Thomas Johnson MS	9:30	<b><u>WICOMICO COUNTY</u></b>	
Patuxent Valley MS	7:50		Silver Creek MS	8:15	Thurgood Marshall MS	8:30	James M. Bennett MS	8:15
Thomas Viaduct MS		8:30	Silver Spring International	8:15	Walker Mill MS	9:30	Mardela MS/HS	7:45
<b><u>KENT COUNTY</u></b>			Sligo MS	8:15	William Wirt MS	8:30	Pittsville MS	8:00
Kent County MS	7:40		Takoma Park MS	8:15	<b><u>QUEEN ANNE'S COUNTY</u></b>		Salisbury MS	7:45
<b><u>MONTGOMERY COUNTY</u></b>			Tilden MS	8:15	Centerville MS	8:50	Wicomico MS	7:45
Argyle MS		8:15	Hallie Wells MS	8:15	Matapeake MS	8:00	<b><u>WORCESTER COUNTY</u></b>	
John. T. Baker MS		8:15	Julius West MS	8:15	Stevensville MS	7:40	Pocomoke MS	8:10
Benjamin Banneker MS		8:15	Westland MS	8:15	Sudlersville MS	7:30	Snow Hill MS	8:00
Briggs Chaney MS		8:15	White Oak MS	8:15	<b><u>SOMERSET COUNTY</u></b>		Steven Decatur MS	7:30
Cabin John MS		8:15	Earle B. Wood MS	8:15	Somerset Intermediate	7:20		
Roberto Clemente MS		8:15	<b><u>PRINCE GEORGE'S COUNTY</u></b>		<b><u>ST MARY'S COUNTY</u></b>			
Eastern MS		8:15	Benjamin StoddertMS	8:30	Chesapeake Public Charter	8:03		
William H. Farquhar MS		8:15	Benjamin Tasker MS	8:30	Esperanza MS	7:10		
Forest Oaks MS		8:15	Buck Lodge MS	8:30	Leonardtwn MS	7:05		
Robert Frost MS		8:15	Charles Carroll MS	8:30	Margaret Brent MS	7:55		
Gaithersburg MS		8:15	Drew Freeman MS	7:30	Spring Ridge MS	7:05		
Herbert Hoover MS	8:15		Dwight D Eisenhower MS	9:30	<b><u>TALBOT COUNTY</u></b>			
Francis Scott Key MS		8:15	Earnest Everett Just MS	9:30	Easton MS	7:35		
Dr. Martin Luther King Jr. MS	8:15		G. James Gholson MS	8:30	St Michaels MS/HS	7:50		
Kingsview MS		8:15	Glenridge Area MS	8:30	<b><u>WASHINGTON COUNTY</u></b>			
Lakeland Park MS		8:15	Greenbelt MS	9:30	Boonsboro MS	8:35		
Colonel E Brooke Lee		8:15	Gwynn Park MS	7:30	Clear Spring MS	8:35		
A. Mario Loiderman MS		8:15	Hyattsville MS	9:30	E. Russell Hicks MS	7:20		
Montgomery Village		8:15	James Madison MS	9:30	Northern MS	7:20		
Neelsville MS		8:15	Kenmoor MS	9:30	Smithsburg MS	8:35		
Newport Mill MS		8:15	Kettering MS	7:30	Springfield MS	7:20		
North Bethesda MS	8:15		Martin Luther King Jr. MS	9:30	Wester Heights MS	7:20		
Parkland MS		8:15	Nicholas Orem MS	9:30				
John Poole MS		7:55	Non_Traditional Program Middle	9:30				
Thomas W. Pyle MS	8:15		Oxon Hill MS	8:30				
Redland MS		8:15	Samuel Ogle MS	9:30				
Ridgeview MS		8:15	Sonia Sotomayor MS @Adelphi	9:30				
			Stephen Decatur MS	9:30				



**Average Charter Middle/High School Start Time 8:21:22 AM**

<b>Charter School Name (schools serving K-8 excluded)</b>	<b>Grades</b>	<b>Start Time</b>
Baltimore Leadership School For Young Women, Baltimore MD	6-8	8:15:00 AM
Baltimore Leadership School For Young Women, Baltimore MD	9-12	8:30:00 AM
Chesapeake Math & IT Public Charter Middle School – North, Laurel MD	6-8	7:55:00 AM
Chesapeake Math & IT Public Charter High School – North, Laurel MD	9-12	7:55:00 AM
Chesapeake Math & IT Public Charter – South, Upper Marlboro MD	6-12	8:20:00 AM
Chesapeake Science Point, Hanover MD	6-12	8:20:00 AM
City Neighbors High School, Baltimore MD	9-12	9:00:00 AM
College Park Academy, Hyattsville MD	6-12	8:25:00 AM
ConneXions Community Leadership Academy	6-12	9:00:00 AM
Coppin Academy High School, Baltimore MD	9-12	8:00:00 AM
Green Street Academy, Baltimore MD	9-12	8:15:00 AM

# **Testimony SB 468 Maribel Ibrahim.pdf**

Uploaded by: Maribel Ibrahim

Position: FAV



health, safety and equity in education

Testimony for SB 468

Chair Feldman, Vice Chair Kagan, and Distinguished Members of the Committee:

My name is Maribel Ibrahim and I am the Operations Director and Co-Founder of Start School Later. I'm also the Facilities Director of the Anne Arundel County Public Library and a parent of 2 AACPS students and a graduate.

As a Facilities Director, I understand that while libraries have the ability to run their operations as they see fit, we have requirements for potable water, heating and air conditioning, and life safety that supersede local operations. These are guardrails that ensure safety and they allow libraries to run their operations locally within these health and safety guidelines.

Similarly, schools have similar state level requirements for successful education, such as state mandated days of education in a calendar year, fire safety, testing water quality, sprinklers and HVAC controls. In the same way, HB 1015 seeks to provide guardrails to ensure that students are going to school at a time that is healthy and safe for them to attend.

I have the privilege of experiencing a successful school start time change firsthand. My younger two children are benefiting from more rest, less stress, and the ability to make better decisions without suffering from a cloud of sleep deprivation. My oldest suffered through going to school in the dark and he benefited tremendously physically and emotionally during the virtual learning days of COVID and Anne Arundel's subsequent successful change to healthy and safe school start times for all students.

However, this change took over two decades of wishing to become a reality. The confluence of COVID and remote learning, our proven ability to pivot, and seeking nontraditional solutions led to this change. Too many other school districts are putting safe and healthy school start times on the back burner as they contend with too many other competing priorities. Not having this legislation allows many school districts to avoid this seemingly complex issue and relegate it as a choice.

Page 1 of 2

*Start School Later is a 501(c)(3) nonprofit organization working to ensure school start times compatible with health, safety, education, and equity.*

*Healthy Hours is the Research and Education Arm of Start School Later, Inc.*

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The science tells us that **to continue with unsafe and unhealthy school start times** (prior to 830am for HS and MS) **is to do harm**. Students across the county continue to suffer and our country is experiencing a **sleep deprivation and mental health epidemic** that is masked by high performance, an overload of activities and mounting pressure that worsens and perpetuates this cycle.

Just like fire safety and occupancy requirements in buildings, school start time legislation will assist schools with prioritizing student health and will enable them to make the change more effectively so that generations of children do not continue to suffer. These guardrails will assist schools and allow them to locally manage their schedules within healthy guidelines.

The state has legislation on the books for library funding and capital projects. This legislation has enabled every Maryland county to benefit from funding so the aging buildings can be renovated and modern spaces created. While the legislation does not completely fund renovation projects, state legislation has spurred innovation and creativity at the local level and even rural districts benefit from capital improvements as a result.

Similarly, SB 468 will enable and inspire schools to develop creative, low cost solutions for school start times that are safe and healthy for all students. While there is a fiscal note attached to this legislation, any transportation costs that are reported are perceptions that are not based on actual planning or analysis of where we can gain transportation improvements. Just like a planning study that is used for facilities projects, investing in transportation studies with transportation consultants can yield tremendous savings, boost efficiency and provide for nontraditional solutions.

We need to do what is right for children and protect their health. SB 468 would be a **guardrail** that allows school systems to locally control when their schools start, within safe and healthy parameters. Maryland took the lead with the first successful legislation to study school start times. Let's lead again and help our schools make the changes that need to happen. Please report favorably on SB 468.

Sincerely,

Maribel Ibrahim

Severna Park, MD

Page 2 of 2

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**SB486\_R\_Gelula\_FAV.pdf**

Uploaded by: Richard Gelula

Position: FAV



March 5, 2025

Richard Gelula  
17416 Macduff Ave.  
Olney, MD 20832  
District 14

**Richard Gelula Testimony on SB486 (Favorable)**

Dear Honorable Chair Feldman, Vice Chair Kagan, and members of the Education, Energy and the Environment Committee

**I am writing in support of SB468 to have Maryland middle schools start no earlier than 8:00 AM and high schools no earlier than 8:30 AM.** This legislation (and HB 1015) concern the health, safety, education and general well-being of Maryland's children.

I approach this matter from experience. In 1998, after 25 years as a nonprofit executive, I became the first CEO of the National Sleep Foundation (NSF) and remained in that position until 2008. In my first two weeks I attended a conference co-sponsored by the National Science Foundation and NIH titled, "What Is Sleep and What Is It Good For?" Experts presented extensive research on biological and behavioral aspects of sleep. This led to NSF publishing "Adolescent Sleep and School Start Times," an authoritative review of how puberty shifts adolescent circadian rhythms, delaying their natural sleep and wake times. Given this shift, early school start times – some as early as 7:00 a.m. – deprive adolescents of the sleep they need for optimal learning, health and safety. Subsequent research has reinforced these findings showing the benefits of later school start times.

To summarize key points on adolescent sleep from my tenure at NSF:

- **Widespread Sleep Deprivation:** Many adolescents, juggling early bus schedules, extracurriculars, jobs and homework, get fewer than seven hours of sleep per night – far below the 8-10 hours recommended by the American Academy of Sleep Medicine and the American Academy of Pediatrics. Sleep debt is rarely recovered on weekends.
- **Cognitive, Emotional, and Academic Impact:** Sleep deprivation destabilizes memory, emotions, and overall brain functions. Adults recognize that insufficient sleep impairs mood and performance, making them less productive and more irritable. Adolescents, who need more sleep than adults, face even greater challenges when their school schedules disrupt their natural sleep rhythms and prevent them from getting the sleep they need.
- **Drowsy Driving Risks:** Our greatest concern at NSF was drowsy and fall-asleep driving risk by young drivers. Research showed that of all drivers 19 year olds had the highest incidence of fall asleep crashes, with 17 and 18 year olds also at high risk. I will never forget the photos of young people given to me by their parents, kids who were lost to such tragedies – sometimes whole cars of teens lost or injured in a single deadly

fall-asleep crash. Studies have since confirmed that later school start times reduce the incidence of teen drowsy driving crashes.

- **Missed Sleep Disorders:** Chronic sleep deprivation can mask serious sleep disorders like narcolepsy, an autoimmune disease characterized by pathological and debilitating sleepiness. It is a disability under the Americans with Disabilities Act. In a sleep deprived school environment, symptoms of narcolepsy and other serious sleep disorders like sleep apnea go unnoticed, preventing timely diagnosis and intervention. Missing sleep disorders, all of which have daytime sleepiness as an effect, can ruin a child's life by causing them to fail in or perform worse in school or to experience emotional and behavioral problems.
- **Community Concerns vs. Student Well-Being:** When school start times were debated, logistical concerns – bus schedules, costs, sports, traffic, teacher schedules and contracts – took precedence over student health, safety and learning. Concerns for children and their sleep were often dismissed as a behavioral issue, that “kids just stay up too late” – blaming screen time or socializing. Yet research has shown that with later start times adolescents clock more total sleep and are more alert in school, even if they still stay up late.
- **Disproportionate Impact on Vulnerable Students:** While some high-achieving students sacrifice sleep for academics, research has found that minority and low-income students get the least sleep. Conversely, these groups of students also benefit the most from later school start times.

The research on all sleep and particularly adolescent sleep has grown immensely in the past 15 years. In 2014, after careful evaluation, the American Academy of Pediatrics endorsed delaying the start of middle and high schools across America until 8:30 AM

Children are not given responsibility for determining factors that improve their health and safety. That responsibility lies with their parents/guardians, the community of adults, and policy makers. Using objective information and our collective concern, we must ensure Maryland schools do as much as possible to ensure the success of our youth, including starting high schools no earlier than 8:30 AM and middle schools no earlier than 8:00 AM.

With respect,

Richard Gelula, MSW

# **Sage Snider Testimony 3:5:25.pdf**

Uploaded by: Sage Snider

Position: FAV

Testimony in Support (FAV) of SB0468

**The Honorable Brian J. Feldman**  
**Senate Education, Energy, and the Environment Committee**  
**2 West Miller Senate Office Building**  
**House Office Building**  
**Annapolis, Maryland 21401**

Re: Support for Senate Bill 0468 (Public Middle and High Schools—Start Time for Instruction)

Mr. Chair Feldman, Vice Chair Kagan, and Distinguished Members of the Committee:

I'm an attorney and a Maryland resident, and I grew up in Anne Arundel County, where I served on its school board as a full-voting student member.

I'm speaking today to make one point: setting a reasonable floor on school start times cannot wait.

I am 35 years old. When I was in high school 20 years ago, I had already spent my childhood fighting for later school start times. Back then, I was inspired by a woman who had also served on the Anne Arundel board and been fighting for later start times for decades. How many more decades do students have to wait? Every year that passes, early start times harm more students.

And I mean serious harm. I remember sitting at school board meetings, to testify on this issue, while hallucinating because I was so exhausted. I remember dreading every day of school because it was such a struggle to get there safely, and then asking a friend to kick me during class while I secretly chewed gum so I could stay awake. And I remember organizing an independent study so I could sleep in the library instead of going to class. How many times does this story need to repeat before states say this is unacceptable?

I know it would be great if local school boards fixed this on their own. But local boards can't always put kids' health and education first, so they are too slow. Serving on one myself, I saw how hard it was for local boards to make this change without statewide guardrails, even when advocates like me served on those boards. We needed legislation like this to make clear that healthy school start times are not negotiable; they are a basic health, safety, and educational necessity.

Students today have already waited way too long. So I'm asking you to support this legislation now. It's a small change you can make happen that will truly transform lives. Thanks for your time.

Sincerely,

Sage Snider, Esq.  
sage.snider@gmail.com  
945 Old County Rd.,  
Severna Park, MD 21146

**SB 468 \_Start School Later MoCo\_Testimony.pdf**

Uploaded by: Sandra Landis

Position: FAV



MARYLAND | MONTGOMERY COUNTY  
health, safety and equity in education

**Testimony of Sandra S. Landis, Montgomery County Chapter Leader**

**Start School Later on SB 468**

**March 5, 2025**

Dear Members of the Maryland General Assembly and Interested Parties,

Thank you so much for the privilege of submitting this testimony regarding SB 468 – Public, Middle, High and Charter Schools Start Time for Instruction. My name is Sandra Landis, and I am the [Montgomery County Chapter Leader of Start School Later](#), a national organization dedicated to ensuring school start times compatible with health, safety, education and equity. I simultaneously serve as Bell Time Subcommittee Chair of the [Montgomery County Council of PTAs \(MCCPTA\)](#). Both roles work synergistically to underscore the single mission focus of safe and healthy bell times for secondary school students.

Most of our public schools in the State are not complying with healthy school start times recommended by nearly every medical group in the country, including the [U.S. Surgeon General](#), [American Academy of Pediatrics](#), and [Centers for Disease Control](#). Studies show that teenagers need 8 – 10 hours of sleep, yet their onset of sleep is metabolically delayed until approximately 11 pm. Compounding this sleep deficit is the fact that current

bell times require our teens to be awakened for school during the most critical time of their sleep cycles, which occurs toward its end, when higher level brain functions develop including reasoning, problem solving and good judgement. Hence, our operational decisions interfere with our students' ability to develop the very critical thinking skills we want them to have to access the curriculum, and to succeed in school and in their lives.

Adolescents who get insufficient or poor quality sleep are more likely to report symptoms of depression, hopelessness, suicidal thoughts and attempts, irritability and impaired emotional regulation. If this isn't concerning enough, sleep deprivation is linked to the two leading causes of death in adolescents: accidents (namely, [car crashes](#)) and [suicide](#) (Tefft, 2018; Lee et al., 2012). Bell times that are too early are associated with aggression and gun violence. Sadly, these latter findings track to Montgomery County's experience between 2019 and 2023, where juvenile crime increased 95%.

The day after the hearing on HB 1015, the MCCPTA enacted a resolution regarding [Healthy Sleep for Adolescents](#). In recognition of teenagers' need for more sleep, in 2015 Montgomery County Public Schools (MCPS) delayed bell times by 20 minutes to the current high school class start time of 7:45 a.m. MCCPTA has included completing the bell time change to achieve safe and healthy bell times in our Advocacy Priorities for the past 4 years to encourage MCPS to "finish the job" and set medically recommended school start times, but we haven't seen any action on this from the Montgomery County Board of Education or MCPS. To get more traction on this and show

that parents view it as a priority, the standalone resolution was enacted with the hopes of elevating this important issue.

Some school districts might want to claim “local control” over this issue. The Montgomery County Board of Education ascribes to that philosophy. However, with local control comes responsibility, which most Maryland localities have shirked. This is precisely why this legislation continues to be warranted.

The MCCPTA speaks with one voice for all 160,000 + students and 210 schools in the largest school district in Maryland. Absent enactment of SB 468, I have no idea how many more decades of inaction on this issue will occur, and how many futures of promising young students will go unrealized because of the inability or unwillingness of local school districts to undertake this important measure. If Montgomery County, with its highly educated and very active parent body is struggling so much to get this done, I can’t imagine how difficult or nearly impossible it is for other districts in the State to accomplish this.

While youth aged birth to 18 years old comprise 20% of Montgomery County’s population, and approximately 22% of Maryland’s, they represent 100% of our collective future. By enacting SB 468 this body has the opportunity to establish guardrails to ensure that teens attend school when they are biologically available to learn and succeed. Within those guardrails, local districts can still maintain their autonomy in setting specific bell times for each of their student cohorts.

Thank you, in advance, for your favorable consideration of this bill.



**Prismatic Letter in Support of SB 468 - 03MAR25.pd**

Uploaded by: Tatia Prieto

Position: FAV



March 3, 2025

Senator Benson  
Education, Energy, and the Environment Committee  
Maryland General Assembly

RE: **Senate Bill 468**

Senator Benson,

I am writing to add my voice of support for SB 468 to mandate later school start times for middle and high schools in Maryland. I favor this bill for 3 reasons:

- ◆ **Research supports it.** The research supporting later school start times for middle/high school students is deep and compelling. Later secondary start times are associated not just with better academic performance, but also lower levels of obesity, alcohol consumption, depression, school absenteeism, and school disciplinary actions. Other than the temporary inconvenience of adjusting to a new schedule, there appear to be no downside to later middle/high start times.
- ◆ **Districts tend to resist change until it is mandated.** Having worked with school districts all over the country, the most frequent pushback we get when clients are considering a school start time change is that they only want to do it if it won't cost them anything or only if everyone (parents, teachers, athletics directors, afterschool providers, etc.) supports the change. Both excuses ignore the research and allows the status quo to continue to fail students. In comparison, California mandated later school start times for middle/high schools starting in 2022. We have no reports of a California district being unable to comply with the law. In 1 case study we recently completed, a California district of ~50,000 students reduced their transportation costs while aligning their start times to the law.
- ◆ **It can be done.** – Prismatic supported Anne Arundel County Public Schools when it successfully changed to later middle/high school start times. Behind the scenes, adjusting bus routes was detailed and time-consuming, both for my consultants and for various district staff. However, it was implemented without additional transportation costs for AACPS.

Thank you for working to improve the lives of students.

Sincerely,

Tatia Prieto, Ed.D., MBA, PMP  
President

# **MD Testimony for Senate Education Committee Hearin**

Uploaded by: Terra Ziporyn Snider

Position: FAV



health, safety and equity in education

**The Honorable Brian J. Feldman**  
**Senate Education, Energy, and the Environment Committee**  
**2 West Miller Senate Office Building**  
**House Office Building**  
**Annapolis, Maryland 21401**

*Re: Support for Senate Bill 0468 (Public Middle and High Schools—Start Time for Instruction)*

Mr. Chair Feldman, Vice Chair Kagan, and Distinguished Members of the Committee:

Thank you for this opportunity to testify **in support of Senate Bill 0468**, an essential and groundbreaking piece of public health and child-protection legislation that will help local communities ensure school hours promoting children's health, safety, and school performance.

I am the Executive Director and Co-Founder of Start School Later, a Maryland-based, non-profit coalition dedicated to safe, healthy, and equitable school hours. I have a doctorate in the history of science and medicine, and my work as a medical writer has included co-authoring of *The Harvard Guide to Women's Health* and serving as an associate editor of the *Journal of the American Medical Association (JAMA)*. I'm a Severna Park resident and Maryland voter as well, and have experienced firsthand what it meant for my three children, all graduates of Severna Park High School, to attend a school that began each day at 7:17 a.m.

What I experienced with my now grown children has kept me working for decades to address this critical matter of child health and safety that local districts have trouble addressing—even when school leaders were trying to do so. I've seen the same story play out all over the country: schools try to change bell times, but they almost always face pushback from communities who fear change and don't understand why they are being asked to do it. I've also seen many districts around the country make this change and discover these fears are unfounded and that safe, healthy hours are feasible and affordable. **Still, fear and speculation often stop change, and kids get caught up in the gears. This has been true in many Maryland counties since the 1990s.**

**The result is significant, unnecessary harm to student health, safety, and school performance**, as recognized by both the medical and education communities, including the American Medical Association (AMA), Centers for Disease Control and Prevention (CDC), National PTA, National Education Association (NEA), and American Academy of Pediatrics (AAP)—which, in 2014, first recommended that secondary schools start no earlier than 8:30 a.m. Recognizing these calls—and the extensive research supporting them—the Maryland General Assembly unanimously passed landmark legislation in 2014, prompting the Maryland Department of Health and Mental Hygiene (DHMH) to issue a [\*Report on Safe and Healthy School Hours\*](#) (Dec. 2014) recommending that MSDE advise all Maryland districts to follow AAP policy. This report also noted that despite two (now THREE) decades of trying, **districts may need support overcoming political obstacles to change.**

## Testimony in Support of SB0468 from Start School Later

Following precedents recently established in both California and Florida, **SB0468 provides this support, empowering districts to keep student well-being off the chopping block with every budget crisis.** Importantly, and contrary to common misperceptions:

1. **This bill is NOT a mandate. It is merely a guardrail** setting a reasonable and medically recommended floor on how early schools can require attendance. (We all already live by similar mental guardrails—e.g., no one would consider starting class at 3 a.m.) Districts can still set any schedules that work for their communities so long as those schedules are safe and healthy.
2. **Many districts (including Maryland districts) have found feasible and affordable ways to follow these guardrails and run schools at safe, healthy hours.**

Not insignificantly, this legislation will also benefit Maryland's economy: the **RAND Corporation** projects that **starting middle and high school classes no earlier than 8:30 a.m. would boost the national economy by \$83 billion within a decade**, with benefits far outweighing any immediate costs of change. Note, too, that **the extravagant cost claims by some districts in the bill's fiscal analysis overlook the many creative and low-, no-cost, and even cost-saving transportation solutions** many districts have employed to make similar changes.

Sleep and school hours are a public health and equity issue like child labor, smoking, and seatbelts and therefore require oversight by state leaders elected to protect the public good. In many districts today, students and their parents must choose between compliance with school hours and adequate sleep. **Setting parameters for safe, healthy hours is just as appropriate for the state of Maryland as establishing standards for the number of days or hours children should be in class, or any of the state's many school health laws.** This is a case where, as Dr. Judith Owens of Harvard Medical School has observed, **"to do nothing is to do harm."**

**Maryland's schools need help if they're going to do the right thing and avoid subjecting another generation to what we now know are counterproductive and harmful conditions.** Our state led the nation by passing [HB883/SB14](#) in 2014 and [HB39](#) in 2016. But nearly a decade has passed, and thousands of real live children continue to suffer unnecessarily day after day and year after year. Please help our school leaders do what is right for children and communities by supporting this bill.

Sincerely,

Terra Ziporyn Snider, Ph.D.  
Executive Director and Co-Founder  
Start School Later, Inc.

**SB468 support letter.pdf**

Uploaded by: Timothy Ammon

Position: FAV

March 2, 2025

The Honorable Senator Brian J. Feldman  
Chair, Education, Energy, and the Environment Committee  
2 West Miller Senate Office Building  
Annapolis, Maryland 21401

Re: SB0468 (Benson) Public Middle, High, and Charter Schools - Start Time for Instruction  
**SUPPORT**

Dear Senator Feldman:

My name is Tim Ammon and I am writing you in an individual capacity. I have worked for more than 25 years as a consultant to the student transportation industry on matters of school start times and most recently on matters of later high school start times. While my organization takes no official position on the issue, I am writing in support of the effort as I believe the logistical and financial challenges, while real, are solvable in a way that is fiscally responsible while also doing what is in the best interest of children.

It is common to believe that the changes in start times will require a massive disruption to the transportation network and significant increases in transportation costs. Arguments are frequently made that it will be necessary to collapse highly efficient two- or three-tier systems to one tier structures that would dramatically increase the number of buses required at a time when driver shortages remain persistent. This belief is fundamentally incorrect and fails to recognize both the possibilities available and the impact of individual district choice on how services will be provided. What is true is that to have a complete and accurate assessment of transportation impacts it is necessary to clearly define and articulate the underlying constraints and variables associated with the routing solutions being proposed.

This opportunity for mitigation is most clearly demonstrated using the example of a real district where a disciplined and structured assessment of costs was conducted. Initial estimates, prior to any actual analysis, indicated that this district would experience a near doubling of transportation expenditures for in-district home-to-school students if healthier start times implemented. For this 80-bus school district, this would have equated to approximately \$2 million in additional expenditures. What this cursory analysis and associated estimate failed to recognize is the huge number of policy and operational choices districts have in designing transportation networks and the impact these choices have on actual costs.

After following a process that rigorously assessed and defined these choices, a total of 10 possible alternative start time scenarios and their associated transportation routing structures were analyzed. These analyses indicated that healthier start times could be implemented at a cost ranging from \$180,000 (approximately 2.5 percent) to \$1.6 million (23 percent) in additional expenditures depending solely on the combination of choices the district made about service provision. These options are significantly less than the near doubling of costs. While a sample of one district is not definitive, it is illustrative of the possibilities for cost control and mitigation when actual analysis is performed. The highly speculative estimates of both the logistical and financial impacts often associated with the debate on healthier start times are frequently lacking the necessary nuance and considerations that allow for accurate evaluations of likely impacts.

*Re: SB0468 (Benson) Public Middle, High, and Charter Schools - Start Time for Instruction  
SUPPORT*

*March 2, 2025*

*Page 2 of 2*

As a professional who has worked in the transportation industry for more than 25 years it is clear that the assessments of transportation impact are overly dramatic. The definitive statement on the need to reduce or eliminate tiers in particular is clearly not a universal outcome and any policy analysis on the assessment of cost or logistical impact should not assume that requirement.

Healthier school start times will be beneficial to students across Maryland. Using transportation impacts as the rationale for opposing this measure ignores the overwhelming benefit potential and the options available to districts to mitigate any negative impacts. It is my strong professional and personal belief that the implementation of healthier school start times represents a unique opportunity to improve the lives of all school age children across Maryland and I strongly support SB0468.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Ammon", with a stylized flourish above the name.

Tim Ammon

[timammon@yahoo.com](mailto:timammon@yahoo.com)



# **SB468 School Start Time - Favorable - Deb Jung.pdf**

Uploaded by: Deb Jung

Position: FWA



# Howard County Council

Deb Jung  
Councilmember

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District 4

George Howard Building  
3430 Court House Drive  
Ellicott City, Maryland 21043-4392

Senate Chair Brian Feldman  
Education, Energy, and the Environment Committee  
2 West Miller Senate Office Building  
Annapolis, MD 21401

March 5, 2025

Dear Chair Feldman and Committee Members:

I am testifying today in FAVOR of SB468/HB1015, School Start Time Instructions. I represent District 4 on the Howard County Council, and I appreciate that the bill sponsors are addressing this important issue. Advocating for later school start times for middle and high school students led me to seek elected office in 2018. I saw firsthand how my then teen daughter struggled to go to bed early enough to get the recommended number of hours of sleep before having to get up in time for school. These up-all-night, sleep-all-day teenagers used to be a household mystery but now we understand the biological factors that govern teenagers' sleep schedules.

The American Academy of Pediatrics recommends that middle and high school students should start school no earlier than 8.30am to better align with their natural sleep patterns. Later start times lead to better sleep, better grades, and better mental health. Research shows that teenagers who start their school day at 9am or later do even better than their peers who start school earlier. Good, better, best: let the children rest.

If later is better than why haven't all local Boards of Education (BOE) adopted this research-based policy by now? I appreciate that SB468/HB1015 takes the pressure off of the local BOEs and makes this a statewide decision. BOEs face too much public criticism for major policy shifts and changing start times will be yet another exhausting fight against the status quo. The science is irrefutable, and this bill makes it easier to make the healthy decision for students.

In Howard County, our BOE attempted to shift start times for the 2024-2025 school year. Six middle schools now start before 8am and the remaining 14 middle schools start at 8.30am. All high schools in Howard County start at 7.50am. During the BOE's public hearing on start times, I testified that schools should start even later to better align with the sleep science, but the vote unanimously favored a more compressed timeframe. Concurrently the BOE expanded walk zones to eliminate busing costs due to other unrelated transportation decisions. The extra sleep

provided by the later times was negated by the loss of bus transportation and the extra time of walking up to two miles to high school.

I would also ask that you file a strengthening amendment to SB468 so that the benefits of later start times are not undermined by expanded walk zones or bus service reductions.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "Deb Jung". The signature is written in a cursive, flowing style.

Deb Jung

Howard County Council, District 4

**SB0468- State Board- Oppose.pdf**

Uploaded by: Carey Wright

Position: UNF

TO: Senate Committee on Education, Energy, and the Environment

BILL: Senate Bill (SB) 0468 – Public Middle, High, and Charter Schools – Start Time for Instruction

DATE: March 05, 2025

POSITION: Oppose

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The Maryland State Department of Education (MSDE) respectfully opposes **SB0468 – Public Middle, High, and Charter Schools – Start Time for Instruction.**

### **SB0468 Summary**

SB0468 mandates that Maryland public middle schools and high schools may not start the school day earlier than 8 am and 8:30 am respectively.

### **Testimony**

MSDE opposes SB0468 due to its significant operational and a fiscal impact on LEAs. The impact of limiting the start time of middle and high schools will increase the costs of transportation provided by the LEA and/or through contracts. By moving the start of these grades to a later time, the activities that students attend after school such as clubs, sports, or other extracurricular activities would be pushed later into the evening hours. Students who work after school may also be impacted.

Local Education Agencies (LEAs) must consider many variables when determining the start and end times for the school day. These include school location, geographic dispersion of the school population, coordination of school buses for general education and special education students and plans for school activities that may occur before or after the regular school day. By moving the start times for middle and high school students to a later time, more school buses will be on the road during peak traffic times during morning and afternoon rush hours. Additionally, some families rely on older students to care for younger siblings before or after school. This may be more difficult if high schools dismiss later than elementary or middle schools. Changing the start time for the middle and high school grade bands will have an impact on elementary schools, as the LEA must manage transportation schedules for all grades.

Many LEAs have studied options for start times that take into consideration the available research, the needs of students, the geography of the county, and the demands of providing extra-curricular activities, including travel for interscholastic athletics. These efforts typically include key stakeholders such as parents, so that solutions are tailored to local needs.

Lastly, if LEAs seek a waiver to these start times under the law, they would appeal to the State Board of Education, and the Board would hear their case and make waiver decisions. State Board members do not have transportation and traffic expertise which does not set them up well to make such waiver decisions.

We respectfully request that you consider this information as you deliberate **SB0468**. Please contact Akilah Alleyne, Ph.D. (Executive Director of Government Affairs), [akilah.alleyne@maryland.gov](mailto:akilah.alleyne@maryland.gov), for any additional information.

# **SB 468 - Public Middle, High, and Charter Schools**

Uploaded by: Nia Callender

Position: UNF



**Mary Pat Fannon, Executive Director**  
1217 S. Potomac Street  
Baltimore, MD 21224  
410-935-7281  
marypat.fannon@pssam.org

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**BILL:** SB 468  
**TITLE:** Public Middle, High, and Charter Schools - Start Time for Instruction  
**DATE:** March 5, 2025  
**POSITION:** Unfavorable  
**COMMITTEE:** Education, Energy, and the Environment Committee  
**CONTACT:** Mary Pat Fannon, Executive Director, PSSAM

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The Public School Superintendents' Association of Maryland (PSSAM), on behalf of all twenty-four local school superintendents, **opposes** Senate Bill 468.

This bill requires, beginning with the 2027-2028 school year, all middle schools in the State to begin instruction no earlier than 8:00 a.m. and all high schools in the State to begin instruction no earlier than 8:30 a.m. The State Board of Education (SBE), by request, may grant waivers from these requirements if they determine that there is a compelling reason for a school to require a different start time. However, a lack of funding to implement the new start times is not a compelling reason for a waiver. Additionally, beginning in the 2026-2027 school year, each local board of education and public charter school must implement a public information campaign to raise awareness of the later start times for middle and high schools, as specified. If requested, SBE must assist with these campaigns. The bill makes additional technical and conforming changes.

Although PSSAM appreciates the intent of SB 468, local superintendents firmly believe that decisions regarding mandates—such as changes to school start times—should be made by local school districts in conjunction with guidance from the Maryland State Department of Education (MSDE). It is important to note that local school systems already have the authority to adjust start times as needed and each district should be allowed the discretion to make decisions that best support its students, families, and communities.

For these reasons, PSSAM **opposes** Senate Bill 468 and kindly requests an **unfavorable** report.

# Montgomery County Board of Education Testimony\_SB

Uploaded by: Patricia Ursprung

Position: UNF





# MONTGOMERY COUNTY BOARD OF EDUCATION

*Expanding Opportunity and Unleashing Potential*

15 West Gude Drive ♦ Suite 100 ♦ Rockville, Maryland 20850

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**BILL:** SB 468

**TITLE:** Public Middle, High, and Charter Schools - Start Time for Instruction

**DATE:** March 5, 2025

**POSITION:** Oppose

**COMMITTEE:** Education, Energy, and the Environment

**CONTACT:** Patricia Ursprung, Coordinator, Legislative Affairs

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The Montgomery County Board of Education opposes Senate Bill 468.

This bill requires Maryland public school systems, beginning in the 2027-2028 school year, to begin instruction not earlier than 8:00 a.m. for middle schools and 8:30 a.m. for high schools.

On September 26, 2024, the Montgomery County Board of Education adopted a legislative platform that contains priority issues and ongoing concerns. One of the ongoing concerns is preserving local autonomy. Based on this platform position, the Montgomery County Board of Education opposes legislation that would infringe on local control. Bills that fall into this category require specific school system action and may impact areas such as school calendars, school start times, curriculum, testing, procurement, and other operational decision-making.

Senate Bill 468 infringes on local control as it places restrictions and requirements on permissible school start times. As a result, the Montgomery County Board of Education opposes Senate Bill 468.

**SB0468 Howard Co BOE Testimony 030525 for EEE - St**

Uploaded by: Staff Howard County

Position: UNF



**Board of Education of Howard County  
Testimony Submitted to the Maryland Senate,  
Education, Energy, and the Environment Committee  
March 5, 2025**

**Board of Education  
of Howard County**

Jolene Mosley, *Chair*

Linfeng Chen, Ph.D., *Vice Chair*

Andrea Chamblee, Esq.

Jennifer Swickard Mallo

Jacky McCoy

Meg Ricks

Antonia Watts

James Obasiolu  
*Student Member*

William J. Barnes  
*Superintendent,  
Secretary/Treasurer*

**SB0468: UNFAVORABLE**

**Public Middle, High, and Charter Schools - Start Time for Instruction**

The Board of Education of Howard County (the Board) opposes **Public Middle, High, and Charter Schools - Start Time for Instruction** as a mandate on local school system operations that has extensive fiscal impacts without dedicated funding.

SB0468 requires all Maryland middle schools to begin instruction after 8 a.m. and all Maryland high schools to begin after 8:30 a.m. starting with the 2027-2028 school year. In instances where a school has a compelling reason to require a different start time, the bill authorizes the Maryland State Board of Education to grant a waiver to the school to begin instruction earlier. A school cannot, however, use a lack of available funding as a compelling reason.

In Howard County, school start times are staggered in order to utilize a smaller pool of buses that make school runs multiple times throughout the morning hours in order to have all students in the classroom by 9:25 a.m. HCPSS' [earliest school start time](#) is currently 7:50 a.m. for all high schools and some middle schools. The remaining middle schools currently start at 8:30 a.m.

Many school systems throughout the state and nation are working to address the core issue of early school start times. Research by organizations such as the [American Academy of Pediatrics](#) recognize "insufficient sleep in adolescents as an important public health issue that significantly affects the health and safety, as well as the academic success, of our nation's middle and high school students." The Board supports healthy school start times and continues to move towards that goal. Maintaining local control over the exact school start times, however, is imperative for operational and financial flexibility of school systems.

SB0468 would become an unfunded mandate for additional buses as the requirements of the bill would significantly compress the schedule. More buses will be needed to service our students since the current buses will not be able to make as many separate runs in a shorter amount of time. Additionally, bus contractor availability doesn't support the volume of buses that would be needed. The nationwide shortage of available buses and bus drivers would further complicate the issue and drive up contract prices. The average cost of new buses is rising and currently stands at \$150,000-170,000 with a 12-18 month lag time for delivery for a diesel bus. Last year, the average cost for an electric bus was around \$345,000, not including the fueling infrastructure needed.

Alternatives to compressing schedules including moving elementary start times earlier and middle or high schools after 9 a.m. These options have been previously discussed by the Board on multiple occasions, dating back to 2015, with community input largely against moving high schools later than middle or elementary schools. Considerations for later high school start times include the availability of older siblings to provide childcare, high schoolers working in after school day care facilities, as well as the impact on athletics and extracurricular activities.

Board of Education of Howard County  
Testimony Submitted to the Education, Energy and the Environment Committee  
March 5, 2025

As a legislative platform, the Board opposes legislative measures such as SB0468 that diminish its ability to respond to its constituency on issues currently under its authority, as local boards must be accountable directly to their citizenry.

For these reasons, we urge an UNFAVORABLE report on SB0468 from this Committee.

**SB 468 - MSEA - INFO.pdf**

Uploaded by: Samantha Zwerling

Position: INFO

**INFORMATIONAL**

**Senate Bill 468**

**Public Middle, High, and Charter Schools – Start Time for Instruction**

**Education, Energy, and the Environment Committee**

**March 5, 2025**

**Samantha Zwerling  
Government Relations**

The Maryland State Education Association offers this informational testimony on Senate Bill 468, which would require beginning with the 2027-2028 school year, all middle schools in the State to begin instruction no earlier than 8:00 a.m. and all high schools in the State to begin instruction no earlier than 8:30 a.m., except in cases where a waiver is granted by State Board of Education. Additionally, the legislation would require each county board of education and each public charter school to implement a certain public service campaign to raise awareness on sleep deprivation and later school start times.

MSEA represents 75,000 educators and school employees who work in Maryland's public schools, teaching and preparing our almost 900,000 students so they can pursue their dreams. MSEA also represents 39 local affiliates in every county across the state of Maryland, and our parent affiliate is the 3-million-member National Education Association (NEA).

We appreciate efforts to support students' health and readiness to learn. To the extent to which changes to school scheduling may affect school personnel's job requirements, we would urge that the implementation and impact of any changes are discussed and negotiated with local educators' unions. Bringing unions into the implementation process will mitigate potential unintended consequences to the wraparound services that schools provide and ensure that educators can support students effectively.