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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