Testimony of Maine Chapter of the American Academy of Child & Adolescent Psychiatry, in Favor of LD 396, An Act to Provide for Later Starting Time for High Schools

Senator Rafferty and Representative Murphy and members of the Committee on Education and Cultural Affairs, my name is Dr. Robyn Ostrander. I am a child & adolescent psychiatrist and parent of a teenager, and I reside in Falmouth. I am testifying as a member of the Maine Council of Child and Adolescent Psychiatry, the local chapter of the American Academy of Child & Adolescent Psychiatry, in favor of LD 396. I have practiced Child & Adolescent Psychiatry for the last 20 years, the last 8 of them in Maine. As an undergraduate I conducted research in sleep and circadian rhythms. My medical degree is from Harvard Medical School, and I did my Psychiatry and Child Psychiatry training at Dartmouth. Insufficient sleep is a public health problem.

High School aged youth need from 8.5 - 10 hours of sleep each night. But they do not naturally take this sleep at the same time of day as when they were younger children. Normal teenage biology involves what we call a phase shift. Natural biorhythms transform them from the childhood larks who wake up early, to teenage night owls who struggle to wake up early. Their biology makes it difficult for them to fall asleep before 11pm, and without time pressures the average teen would wake up 9.25 hours later, at 8:15am. Data from the Maine Integrated Youth Health Survey shows that teens in Maine report much less than that. In the 2023 MIYHS, only 27.8% of 55,352 Maine high school students surveyed reported at least 8 hours sleep per night.

Inadequate sleep impacts student health, wellbeing, and academic success and has long-term health consequences. Even mild sleep deprivation is associated with increased risk of accidents and injuries, impaired learning, poor emotional regulation, aggression, memory loss, poor self-esteem, obesity, and changes in metabolism and immune function. In an appraisal of prominent sleep research studies, researchers found that later bedtimes paired with earlier wake times, which is how high schoolers with early start times are required to operate, were associated with lower academic performance, grade point averages (GPAs) and motivation levels.

When school starts later, teens sleep later and longer. More sleep and later weekday rise times are associated with better grades and improved academic motivation. The growing interest in secondary schools' adoption of later start times has been preceded by 20 years of research in adolescents' sleep needs, sleep deprivation, peak periods of alertness, and the best times of day for learning. Evidence indicates that a delay in school starting times by even one hour improves adolescent school performance and educational achievement, with associated gains in lifetime earnings. 8:30am or later high school start times have been specifically shown to improve the following: eating breakfast, attending school, attending more first period classes, academic focus and alertness, grade point average, state assessment scores, and college admissions test scores. School start times on or after 8:30am have also been shown to decrease the following among teens: sleeping in class, delinquency, disciplinary action, student-involved car accidents, stress-related complaints to school nurses, rates of depression, obesity, migraines, self harm, and suicide attempts. These complex outcomes are not only related to more adequate sleep and being in school when your mind is fully awake. Later school start times result in later dismissal times, closer to when guardians are home from work. This decreases unsupervised time.

The immediate costs of shifting the start time to 8:30am or later are associated with teacher, bus and sports schedule changes and adding lights to athletic fields. There are also financial benefits: a RAND study estimated a 2 year economic gain of $8.6 billion to the U.S. economy. If we simply consider the beneficial effect on rates of depression, later high school start times are good for teens. In Maine, 33.8% of high school students endorsed clinical depression in the 2023 Maine Integrated Youth Health Survey, and 8.1% reported at least 1 suicide attempt in the last year. Later school start times reduce depression which has a direct impact on preventable deaths. Both the American Academy of Sleep Medicine and the American Academy of Pediatrics recommend that both middle and high schools begin no earlier than 8:30am. The Maine Chapter of the American Association of Child & Adolescent Psychiatry urges you to support this legislation.

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