Date of Hearing: July 10, 2019

ASSEMBLY COMMITTEE ON EDUCATION Patrick O'Donnell, Chair SB 328 (Portantino) – As Amended May 8, 2019

SENATE VOTE: 24-9

SUBJECT: Pupil attendance: school start time

SUMMARY: Prohibits high schools, including those operated as charter schools, from beginning their schoolday before 8:30 a.m. Prohibits middle schools, including those operated as charter schools, from beginning their schoolday before 8:00 a.m. Specifically, **this bill**:

- 1) Prohibits the schoolday for high schools, including high schools operated as charter schools, from beginning no earlier than 8:30 a.m.
- 2) Prohibits the schoolday for middle schools, including middle schools operated as charter schools, from beginning no earlier than 8:00 a.m.
- 3) Defines "schoolday" as having the same meaning as defined by the school district or charter school for purposes of calculating average daily attendance in order to compute any apportionments of state funding.
- 4) Authorizes school districts or charter schools to offer classes or activities to a limited number of pupils before the start of the schoolday that do not generate average daily attendance for purposes of computing any apportionments of state funding.
- 5) Requires that specified start times be implemented by middle schools and high schools no later than July 1, 2022, or the date on which a school district's or charter school's respective collective bargaining agreement that is operative on January 1, 2020, expires, whichever is later.
- 6) Exempts rural school districts from specified start times.
- 7) Encourages the California Department of Education (CDE) to post on its website available research on the impact of sleep deprivation on adolescents and the benefits of a later school start time, and examples of successful strategies for managing the change to a later school start time, and to advise school districts of this posting.
- 8) States that the Legislature encourages school districts and community organizations to inform their communities, including parents, teenagers, educators, athletic coaches, and other stakeholders, about the health, safety, and academic impact of sleep deprivation on middle and high school pupils and the benefits of a later school start time, and to discuss local strategies to successfully implement the later school start time.

EXISTING LAW:

- Requires the governing board of each school district to fix the length of the schoolday for the grades and classes of the schools maintained by the district. (Education Code (EC) Section 46100)
- Specifies that the minimum schoolday for purposes of average daily attendance for grades 4-12 is typically 240 minutes, except as otherwise provided for specialized programs. (EC Sections 46113, 46141)
- Requires school districts and county offices of education to offer 54,000 instructional minutes annually for grades 4-8 and to offer 64,800 instructional minutes annually for grades 9-12, except as otherwise provided. (EC Section 46200 et seq.)
- 4) Authorizes the governing board of a school district that maintains a junior high school or high school to schedule classes in these schools so that each pupil attends classes for at least 1,200 minutes during any five-schoolday period or 2,400 minutes during any 10-schoolday period, and specifies that under that kind of schedule, authorizes any pupil to attend school for less than the total number of days in which the school is in session as long as the pupil attends the required number of minutes per five-schoolday period or per 10-schoolday period to accommodate career technical education and regional occupational center and program courses and block or other alternative school class schedules. (EC Section 46160)
- 5) Requires the governing board of a school district, before implementing an alternative schedule in any school of the district, to consult in good faith in an effort to reach agreement with the certificated and classified employees of the school, with the parents of pupils who would be affected by the change, and with the community at large, and requires the consultation to include at least one public hearing for which the board has given adequate notice to the employees and to the parents of pupils affected. (EC Section 46162)
- 6) Establishes collective bargaining rights for public school teachers, which gives teachers the right to elect an exclusive representative to bargain wages and working conditions with local school boards. Mandatory issues that fall under the "scope of representation" include wages, hours of employment, and other terms and conditions of employment such as health and welfare benefits, leave, transfer, and reassignment policies, safety conditions, class size, procedures to be used for the evaluation of employees, organizational security, and grievance procedures. (Government Code Sections 3540, et seq., 3543.2(a)(1))

FISCAL EFFECT: According to the Senate Appropriations Committee,

- Unknown Proposition 98 General Fund cost pressure, likely in the low millions, for schools to provide additional staff time for supervision before school.
- Significant local costs, potentially in the millions of dollars, for school districts to provide home-to-school transportation services or purchase additional buses, and for local collective bargaining activities.

COMMENTS:

Need for the bill. According to the author, "SB 328 is based on the recommendations of the American Academy of Pediatricians and the Centers for Disease Control. These organizations issued their recommendations after reviewing extensive academic research on the sleep science and biology of teens and concluding that our children's well-being deserves to be the primary focus when setting school start time. There is overwhelming evidence that moving high school and middle school start time later in the day increases academic performance and the public health of teenage students. It is appropriate and consistent for the State Legislature to enact minimum public health standards based on medical and biological research.

The majority of middle and high schools in California begin at times that are contrary to the sleep-health-needs and developmental norms of adolescents. Currently, California has over 3 million middle school and high school students. The average school start time for these students is 8:07 a.m. These early start times are having detrimental and adverse effects on our student's health, stifling academic performance and putting our children in serious risks. This small change of having high school start no earlier than 8:30 a.m. and middle school start no earlier than 8:00 a.m. will improve student health, safety, and educational development. As both the incidences of suicidal thoughts and car accidents are significantly reduced after school start times are shifted later SB 328 has the potential to save lives."

Current school start times. According to the Centers for Disease Control and Prevention, the average start time for middle and high schools in California was 8:07 a.m. in 2011-12. The distribution of start times was as follows:

- Before 7:30 a.m., 3.5% of schools
- 7:30 to 7:59 a.m., 27.7% of schools
- 8:00 to 8:29 a.m., 47.6% of schools
- 8:30 a.m. or later, 21.2% of schools

These data reflect the distribution of start times among schools; the distribution among students was not reported and were collected through a survey by the U.S. Department of Education, which asked the question: "At what time do most of the students in this school begin the school day?" The survey did not distinguish between the regular school day and zero periods, as this bill does, nor does the survey distinguish between public middle, high, and combined schools. Therefore, the reported start times are likely to include zero periods from schools in which most students attend a zero period class, so they are not necessarily an accurate reflection of the start times for the regular school day. Nevertheless, these data suggest that about one-fifth of California's schools are already in compliance with this bill, about one-half would need to delay their start times by 30 minutes or less, about one-fourth would need to increase their start times by 31 to 60 minutes, and fewer than 5% would need to increase their start times by at least 60 minutes to be in compliance.

Local control. Under California's system of education governance, most aspects of the operation of schools is determined by the locally elected governing board. This system recognizes the diversity of California's communities, which differ in geography, size, and demographics. This bill raises fundamental questions about the balance of state and local control. Local governing boards and the governing bodies of charter schools currently have the authority to set school start

times based both on the existing body of research, and the needs of students and the community. Many California schools already begin after 8:00 a.m. and 8:30 a.m., as noted, above. *The Committee may wish to consider* that if this bill is passed the autonomy of local governing boards and governing bodies of charter schools will be fundamentally changed by state statute.

Potential impact. This bill would require many school districts to push back their current start times to 8:30 a.m. or later for high school, and to 8:00 a.m. or later for middle school. **The Committee may wish consider** how that change, which for some schools would be almost an hour later, could have unintended impacts, including, but not limited to, impacts on each of the following:

- Home-to-school transportation. Although providing home-to-school transportation is no longer a requirement for local educational education agencies (LEAs) to provide, unless transportation is included in a student's individualized education program, many LEAs continue to provide transportation to some or all of the students they serve. Further, several LEAs have worked with local transportation agencies to coordinate additional bus routes for students, and also relieve local traffic congestion at peak times of the day. The Rim of the World Unified School District (ROWUSD) bases its budget on a 95% average daily attendance, and relies heavily on home-to-school transportation to meet its budgeted goal for funding. In order to implement a start time of 8:30 a.m. at their high schools, ROWUSD calculates a one-time cost of over \$3 million for buses, uniforms, chains, initial training and drug testing, with ongoing costs of approximately \$1.4 million per year and would result in fiscal insolvency for the district. The Westside Union High School District has participated for over 40 years in the Antelope Valley Schools Transportation Agency in order to share transportation resources. If this bill is enacted, this LEA will need to either start schools serving students in kindergarten through sixth grade much earlier, or much later. The El Dorado Union High School District reports it will need to purchase at least seven busses to implement a delayed school start time. The Jurupa Unified School District calculates it will need to spend approximately \$1 million to purchases 2 additional buses and 3 drivers to accommodate a delayed school start time.
- *Before and after school programs.* Before and after school programs are designed for multiple purposes: to provide a safe environment for students in the hours before and after school when there may be limited adult supervision, to provide enrichment activities (such as homework assistance, field trips), as well as provide child care for working families. Existing state and federal law establish various after school academic enrichment programs including the 21st Century High School After School Safety and Enrichment for Teens Program, the After School Education and Safety Program, and the federally funded 21st Century Community Learning Centers Program. While some of these programs may include a before school component, pushing school start time back to 8:30 a.m. does not seem likely to significantly decrease the need for after school programs, but it does seem likely to increase capacity demands on before school programs. Are there sufficient resources to meet those demands? If schools lack the necessary resources to expand before school programs, and parents out of necessity continue to drop their children off at school at the traditionally earlier times, will those students be appropriately supervised?
- *Supervision.* It is reasonable to expect that in a unified school district, after adjusting school start times for middle and high schools, elementary schools may need to start

earlier and end earlier in order to accommodate the adjusted transportation and other logistics changes. LEAs will likely need to hire additional supervisory staff for the before and after school hours to ensure the safety of the youngest students, in addition to making changes to the operating hours of before and after school programs, creating new costs and potentially diverting funds from instructional activities. Many parents will likely not be able to adjust their work schedules, and will continue to drop off their students at the same time. The Hemet Unified School District reports they will not be able to simply "flip" an hour of coverage from the afternoon to the morning, due to the numerous events that take place after school. If activities and programs like after school programs, clubs and athletics end an hour later, their district will need the supervision coverage an hour longer in addition to adding the time in the morning.

- *Extracurricular activities, including athletics.* Pushing back the time school starts necessitates pushing back the time school ends. Could converting time in the afternoon that is currently used for extracurricular activities to in-class school time negatively impact extracurricular activities, including athletics? Later school start times would push back extracurricular activity start times, forcing students to complete homework and other studying activities further into the evening. Many LEAs report concerns regarding student safety moving athletics practices and games later in the day when there may not be daylight. Lighting of athletic fields will need to be added, or athletic practices will need to start before school to accommodate light and temperature considerations. Conversely, could requiring every high school to start at 8:30 a.m. or later, and middle school to start at 8:00 a.m. or later actually help athletics schedules? Are there positive benefits to keeping students who are not engaged in after school extracurricular activities in school longer? The body of research on this potential area of impact is very small.
- *Block schedules.* Block schedules in middle and high schools typically replace a more traditional schedule of six or seven 40-50 minute daily periods with longer class periods that meet fewer times each day and week. Some block schedules might last 120 minutes per period and meet a few times a week instead of every day. Some block schedules include periods of different length, providing longer classes for core academic subjects and shorter daily periods for electives, or opportunities for students to work off campus in internships. Block schedules are optional and customized locally at the LEA and school level. It is reasonable to expect that adjusting start times will require further modifications to block scheduling in ways potentially more complicated than a more traditional schedule.
- *Collective bargaining*. Existing law includes "hours of employment" within the scope of collective bargaining [Government Code §3543.2(a)(1)]. Accordingly, to the extent this bill requires schools to change their existing start times, collective bargaining contracts would be affected. This bill requires that specified start times be implemented by middle schools and high schools no later than July 1, 2022, or the date on which a school district's or charter school's respective collective bargaining agreement that is operative on January 1, 2020, expires, whichever is later. The Porterville Unified School District negotiated a collective bargaining agreement in 2018 with certificated employees in order to adjust school start and end times to fit the needs of their students. Should school start times be required to start at later times it would likely jeopardize the LEA's ability to formulate a new schedule that provides supports, such as their Breakfast-in-the-Classroom initiative, developed with local stakeholder input.

Research on impact of delayed school start times. A number of studies over the last 15 years have investigated the impact of delayed school start times on student outcomes, with wide variation in conclusions and study design.

• Academic achievement. Very little consensus is found among researchers on the impacts of school start time on academic performance. The 2014 School Start Times for Adolescents policy statement from the American Academy of Pediatrics states, "Improvements in academic achievement associated with delayed start times have been somewhat less consistently demonstrated." Further, a 2016 journal article in SLEEP, Longitudinal Outcomes of Start Time Delay on Sleep, Behavior, and Achievement in High School found, "No evidence to suggest that a change in school start times from earlier to later was associated with either improvement or decline in academic performance." In a 2012 EducationNext article, Do Schools Begin Too Early? examined results from standardized test scores of middle school students in Wake County, North Carolina and found, "Delaying school start times by one hour, from roughly 7:30 to 8:30, increases standardized test scores by at least 2 percentile points in math and 1 percentile point in reading."

The Seattle School District in the state of Washington delayed the start time for secondary schools from 7:50 to 8:45 a.m. in the 2016–2017 academic year. A 2018 research article in Science Advances titled, *Sleepmore in Seattle: Later School Start Times are Associated with More Sleep and Better Performance in High School Students*, summarized the findings of a study of the impact of the delayed start time. The study populations included sophomores of two public high schools in Seattle in which the authors of the article measured sleep-wake cycles using wrist activity devices during the spring of 2016 and the spring of 2017 and found, "delayed school start times are associated with higher grades, reduced sleepiness, and improved attendance and punctuality. Generalized linear models indicated that student performance, as measured by second-semester grades, was significantly higher." *The Committee may wish to consider* that the article cited related to the Seattle study does not include longitudinal results for several years after the school start time was changed.

- Attendance and graduation rates. A 2017 article in the Journal of the National Sleep Health Foundation, *Delayed High School Start Times Later than 8:30 a.m. and Impact on Graduation Rates and Attendance Rates*, reported the findings of a study of 29 public high schools from eight school districts located throughout seven different states comparing data from the year the later school start time was implemented with two years prior linked a start time of later than 8:30 a.m. to improved attendance and graduation rates. However, this study did not include an analysis of other internal or external factors to the school that could have influenced these findings such as changes to curriculum, student supports, and other interventions. According to a 2016 journal article in SLEEP, *Longitudinal Outcomes of Start Time Delay on Sleep, Behavior, and Achievement in High School*, which collected and analyzed data from a public high school in Glen Falls, New York, "Neither unexcused nor excused absences improved after the delay in start times was implemented—in fact, our data indicated a slight increase in absences post-transition."
- *Punctuality and tardiness*. In the 2018 study of delayed school start times in Seattle (cited above) found, "...the later school starts led to an increase in punctuality and attendance

that, remarkably, was only evident in the economically disadvantaged school." Similarly, according to a 2016 journal article in SLEEP, *Longitudinal outcomes of start time delay on sleep, behavior, and achievement in high school*, "Delaying school start times had a small but robust effect on decreasing tardiness, particularly unexcused tardies that often result from oversleeping."

Amount of nighttime sleep. According to a 2014 research paper from the Center for Applied Research and Educational Improvement at the University of Minnesota, Examining the Impact of Later High School Start Times on the Health and Academic Performance of High School Students: A Multi-Site Study, which collected survey data and conducted interviews with students and parents from eight public high schools in five school districts in three states, "Results show that, on average, the teens who had high school start times of 8:35 a.m. or earlier averaged about 7.8 hours of sleep. In comparison, students at Jackson Hole High School, which changed its start time from 7:25 a.m. to 8:55 a.m., are now be averaging greater than 8 hours of sleep." The 2015 article, School Start Time and Adolescent Sleep Patterns: Results from the U.S. National Comorbidity Survey-Adolescent Supplement, American Journal of Public Health, which surveyed over 9,000 students across the United States, "Adjusting for age, sex, school level, urbanicity, and student employment, each half-hour increase in start time before 8:01 a.m. was associated with 11.36 more minutes of weeknight sleep in an overall sample. From 8:01 a.m. onward, start time and sleep duration were not significantly associated."

In contrast, a 2016 journal article in SLEEP, *Longitudinal outcomes of start time delay on sleep, behavior, and achievement in high school*, which studied the impact of later school start times in high school in both the year the later start time [Wave 1] was implemented and one year later [Wave 2], "In most examinations of sleep variables after start time changes are implemented, students slept in later in the morning and held bedtimes constant, leading to a net gain of sleep that sometimes exceeds the amount by which the start time was delayed. In our study, this did not occur: students did initially hold bedtimes roughly steady, and slept later, but by Wave 2, one year after the change in start times, bedtimes had delayed again. *Although the sample reported 20 minutes longer total sleep time at Wave 1, these gains returned to baseline by Wave 2, and we detected no changes in sleepiness physical health, mental health, or sleep satisfaction compared to baseline levels [emphasis added]."*

• Impact of sleep on other behaviors. Kyla L. Wahlstrom, Ph.D., in a 2017 article, Later Start Time for Teens Improve Grades, Mood, and Safety, states, "A seminal analysis of the data from the national Youth Risk Behavior Survey revealed that eight or more hours of sleep appear to be the tipping point in the at-risk behaviors of teenagers (McKnight-Eily et al., 2011). Cigarette, alcohol, and marijuana use declined by 8% to 14% when teens slept eight or more hours each night, with depressing and sexual activity also declining by 9% to 11%...In our study, we found the same patterns of benefit for the health of teens with a later start time. Among the 9,395 students in our study, those who slept eight or more hours each night were significantly less likely to: report symptoms of depression; fall asleep in class; drink caffeinated beverages; have a phone or computer in their bedroom; and do dangerous things without thinking." Dr. Wahlstrom is also the author of the University of Minnesota study, cited above. A 2013 article in JAMA Pediatrics, *Sleep-Deprived Young Drivers and the Risk for Crash*, which examined data

of adolescent teen drivers in Australia stated, "On average, those who reported sleeping six or fewer hours per night had an increased risk for crash compared with those who reported sleeping more than six hours." *The Committee may wish to consider* that this study of Australian adolescents was not directly related to school start times.

Equity concerns for working and single parent families. It is nearly impossible for school boards to set their school start times at a time that is convenient for all parents and guardians because in any given community there is a variance of work schedules for parents and guardians. *The Committee may wish to consider if* it is plausible that pushing back school start times may disproportionately impact working families and single parent families who may not be able take their children to school later or easily arrange for child care. Is this an issue that will exist regardless of school start time?

Research on adolescent sleep. A number of research studies over the last 15 years have examined adolescent sleep, with wide variation in study design and conclusions.

• *Circadian rhythms and sleep-wake homeostasis.* According to the Education Commission of the States, *Later Education Start Times in Adolescence: Time for Change*, humans have a dual process for regulating sleep. The circadian rhythm is the internal clock, controlling the timing of most 24-hour behavioral and psychological rhythms. These daily rhythms include alertness and performance rhythms, hormone production, core body temperature and metabolism. The second process is sleep-wake homeostasis, effectively reminding the body that it needs to sleep after a certain time. The homeostatic process is a measure of sleep pressure; when one has been awake for a while, the pressure to go to sleep becomes greater.

"During puberty adolescents become sleepy later at night and need to sleep later in the morning as a result of shifts in biological rhythms. These biological changes are often combined with poor sleep habits (including irregular bedtimes and the presence of electronics in the bedroom) (Centers for disease Control and Prevention, *CDC Features: Schools Start Too Early*)." This phenomenon is known as 'social jet-lag'." "Proposed remedies for social jet-lag and associated sleep loss are individualized work schedules and later school start-times. According to a 2017 article, *The Effects of Self-Selected Light-Dark Cycles and Social Constraints on Human Sleep and Circadian Timing: A Model Approach*, in Scientific Reports, "While there have been some empirical case studies, there are currently no standard theory-based quantitative evaluations of the effects of such interventions on circadian rhythmicity and sleep timing."

• *How much sleep do adolescents need?* The American Academy of Pediatrics (AAP) supports the American Academy of Sleep Medicine recommendation that teenagers aged 13 to 18 years should regularly sleep 8 to 10 hours per day for good health. However, other researchers including Ian Campbell, Ph.D., and Irwin Feinbert, M.D. of the University of California Davis disagree with the AAP's recommendation stating in the David Enterprise on April 30, 2015, "[The AAP's]...recommended sleep durations are not based on experimental data. There is no rigorous scientific evidence that supports this recommendation. Moreover, it is implausible that the amount of sleep that is biologically needed does not change between age 10 and 17 years."

Other factors. A 2017 article, Journal of Clinical Sleep Medicine, Delaying Middle • School and High School Start Times Promotes Student Health and Performance: An American Academy of Sleep Medicine Position Statement, states, "While an operational change in school start times does not automatically assure longer sleep durations, this change, coupled with inclusion of relevant and targeted educational materials regarding the importance of sleep into middle school and high school curricula, will help motivate students, teachers, and parents to prioritize sleep and implement healthy sleep practices. This includes a cool, dark, quiet sleep environment; adequate time for 8 to 10 hours of sleep per night; consistent bedtimes and wake times on weekdays and weekends; a regular bedtime routine to cue the body that sleep is imminent; and morning light exposure. Furthermore, the use of sleep-disrupting electronic devices near bedtime or during the night should be avoided, because light emitted from electronic devices, particularly blue wavelengths, can suppress the production of melatonin and contribute to difficulty falling asleep. These practices will benefit the student regardless of school start time."

More longitudinal research is needed to study if initial improvements persist. Nearly every article related to school start times and adolescent sleep patterns includes a recommendation for additional research on this subject. In particular, more longitudinal studies are needed to determine the impact of later start times over time; more studies are needed to determine if any initial improvements exist across both academic, discipline, and other measures of student success:

- "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." AAP Policy Statement, *School Start times for Adolescents*, 2014.
- "Few studies have assessed whether associations between school start time and sleep among adolescents differ by age or by sex, and the evidence has been mixed." American Journal of Public Health, *School Start Time and Adolescent Sleep Patterns: Results from the U.S. National Comorbidity Survey—Adolescent Supplement*, 2015.
- "The two U.S. national studies that have reporting associations between school start time and adolescent sleep patterns did not investigate differences in urbanicity." American Journal of Public Health, *School Start Time and Adolescent Sleep Patterns: Results from the U.S. National Comorbidity Survey*—Adolescent Supplement, 2015.
- "A recent review, highlights the fact that, although as many as 80 school districts may have already shifted school timing for adolescents and some positive benefits have been reported, there is a need for further systematic research to quantify the effectiveness of this intervention." Scientific Reports, *The Effects of Self-Selected Light-Dark Cycles and Social Constraints on Human Sleep and Circadian Timing: A Model Approach*, 2017.
- "Although students have demonstrated potential benefits to delaying school start times, the existing evidence regarding the association between school start time and sleep also has limits. As noted by the American Academy of Pediatrics, there is a gap in knowledge regarding the factors that might modify the association of school start time with sleep

outcomes." American Journal of Public Health, School Start Time and Adolescent Sleep Patterns: Results from the U.S. National Comorbidity Survey—Adolescent Supplement, 2015.

- "At present, there is simply insufficient evidence to support the view that later school start times would be more helpful than other interventions. At a minimum, our knowledge of adolescent sleep informs us that there is insufficient evidence to justify the bed durations and school schedules currently recommended by the AAP." Davis Enterprise, *Opinion: Later School Start Times? Not So Fast*, 2015.
- "The Seattle school start time delay of 55 minutes did not result in a gain of 55 minutes of sleep, suggesting that after a year—as opposed to an acute change lasting for 1 week—students may delay their bedtimes, indicating that there may be other factors that are keeping teens awake in the evenings of school days." *Sleepmore in Seattle: Later School Start Times are Associated with More Sleep and Better Performance in High School Students*, Science Advances, 2018.

Recommendations from the AAP. The widely-cited 2014 Policy Statement from the American Academy of Pediatrics, *School Start Times for Adolescents*, includes five recommendations in the concluding remarks. In summary, those recommendations include:

- 1) Pediatricians should educate adolescents and parents regarding the optimal sleep amount teenagers need to match physiologic sleep needs (8.5–9.5 hours).
- 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, and 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 AAP and other child and sleep health advocacy groups.
- 4) Pediatricians and other pediatric health care providers (for example: 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.
- 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.

The Committee may wish to consider that of the five recommendations for their primary audience, pediatricians, to consider, only two include language regarding delaying school start times. The remaining recommendations include information about sleep education and modifying adolescent sleep behavior.

Other states. If this bill is enacted, California would become the first state to adopt a late school start time statewide. According to the Start School Later, Inc. website, Indiana, Maryland, New Jersey and Pennsylvania have passed laws to study school start times. Several other states are hearing legislation this year to either study, create a pilot, or mandate specified school start times. The New York Times reported on September 7, 2018, "The Boston Public School system voted to change its start times in late 2017 but backed away from that switch after facing criticism." The criticism from parents and students largely focused on corresponding new, earlier start times for elementary schools throughout the district changed in compensation for the later start times for high schools.

Arguments in support. Supporters cite research showing (1) the negative effects of sleep deprivation among adolescents and (2) that start times of 8:30 a.m. or later reverses those effects. They assert that adolescent sleep deprivation "is a public health issue that deserves a serious immediate response," and that starting school later is a "simple and obvious fix." Supporters also argue that adolescents' brains are "hard wired" to not sleep before 11:00 p.m., so simply going to bed earlier is not a solution. Finally, they argue that schools benefit from later start times, because experience has shown that the later time results in increased attendance (which increases school district revenue), reduced tardiness, improved academic performance, and a lower incidence of behavioral problems.

Arguments in opposition. According to the Elk Grove Unified School District, "...the permissive nature of the California Education Code currently allows Local Education Agencies to set their own start times. The fact that today more than one in five school districts voluntarily meet SB 328's standards proves the bill is unnecessary for communities that would be well served by later start times.

For communities and school agencies that would be burdened by a later school schedule, however, SB 328 would present tremendous difficulties with significant opportunity costs. And because school schedules have such a wide-ranging and significant impact on operations and expenses, a great number of districts would be hurt by this legislation for a number of different reasons. Determining school schedules is a decision that even more than most should reflect specific conditions and be decided locally, not from Sacramento."

Related legislation. AB 760 (Cooper) of this Session requires, commencing with the 2019–20 fiscal year, the amount of funds received for specified pupil transportation programs to be adjusted by a specified cost-of-living calculation, and requires the Superintendent of Public Instruction to compute an add-on to the total sum of a county superintendent of schools', school district's, or charter school's base, supplemental, and concentration grants in accordance with a certain formula to incrementally equalize pupil transportation program funding to 90% of the approved cost expenditures of the county superintendent of schools', school district's, and charter school's pupil transportation programs.

SB 328 (Portantino) of the 2017-18 Session was very similar to this bill, but was vetoed by the Governor, with the following message:

This is a one-size-fits-all approach that is opposed by teachers and school boards. Several schools have already moved to later start times. Others prefer beginning the school day earlier. These are the types of decisions best handled in the local community.

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REGISTERED SUPPORT / OPPOSITION:

Support

American Academy of Pediatrics, California American Academy of Sleep Medicine Brown Alpert Medical School California District Attorneys Association California Medical Association California Police Chiefs Association California Sleep Society California State PTA Center for Human Sleep Science UC Berkeley Congresswoman Zoe Lofgren Educate. Advocate. Edvoice F.Lux Software LLC First District PTA Fourth District PTA Fresno Unified School District High School Parent Engagement Group Kaiser Permanente Loyola University Maryland Lucile Packard Children's Hospital Stanford Children's Health Mental Health America of California Ninth District PTA Pasadena Unified School District Board of Education Peace Officers Research Association of California **Renaissance School Of Medicine** San Diego Unified School District Board of Education Sleep Research Society South Pasadena Unified School District Start School Later Start School Later California Chapter Start School Later, San Diego County

Opposition

Alameda County Transportation Commission Alameda-Contra Costa Transit District (AC Transit) Association of California School Administrators California Association of School Business Officials (CASBO) California Association of School Transportation Officials (CASTO) California Association of Suburban School Districts California School Boards Association California Teachers Association Charter Schools Development Center Clovis Unified School District

Compton Unified School District Elk Grove Unified School District Irvine Unified School District Kern County Superintendent of Schools Natomas Unified School District **Oakland Unified School District** Office Of The Riverside County Superintendent of Schools Orange County Department Of Education Rim of The World Unified School District **Riverside County Office of Education** San Bernardino County District Advocates for Better Schools (SANDABS) Small School Districts Association **Torrance Unified School District** Valley Industry and Commerce Association West Covina Unified School District 2 individuals

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