

# School Start Time

## RESEARCH & INFORMATION



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# California State Senate

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PUBLIC EMPLOYMENT &  
RETIREMENT

March 8, 2017

Re: SB 328: School Start Time

Dear Public School Supporter,

I recently introduced SB 328, which will require California school districts to start the middle and high school day no earlier than 8:30 a.m.

The vast 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.

The purpose of this booklet is to share research and information on the importance of setting the proper school start time to benefit all our children. Included are reports, statistics and research on school start time. It is my hope that, upon review, you will join me in seeing the benefit for our middle and high school students to moving the start time back. This small change will improve student health, safety, and educational development.

I would like to acknowledge and thank the Start School Later organization, the researchers, the media, and the bill's supporters for sharing the enclosed information.

Sincerely,

A handwritten signature in black ink that reads "Anthony J. Portantino".

ANTHONY J. PORTANTINO  
State Senator, 25<sup>th</sup> District

# Table of Content

## Factsheet

SB 328: School Start Time Factsheet -----	1
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## Reports/ Research

Start School Later.net: Reports, Research and Articles -----	2
American Academy of Pediatrics (AAP) -----	7
Journal of School Health -----	16
Center for Applied Research & Educational Improvement -----	22
The Children's National Medical Center's Blueprint for Change Team -----	31
American Psychological Association -----	42
Education Commission of States -----	48
Do Schools Begin to Early? -----	54
Education Week, Push Back High School Start Times -----	60
Centers for Disease Control and Prevention -----	64
Teen Drivers need a Full Tank of Z-Z-Z-Zs -----	74
Office of Disease Prevention and Health Promotion -----	76
Lack of Sleep Costing U.S. Economy Up to \$411 Billion a Year -----	78
We Need to Talk About School Start Times -----	80
Journal of National Sleep Foundation, Sleep Health -----	82
American Economic Journal, A's from ZZZ's? The Cause Effect of School Start Time on The Academic Achievement of Adolescents -----	90
Delayed High School Start Times later than 8:30a.m and Impact on Graduation Rates and Attendance Rates -----	112
IZA World of Labor, The Educational Effects of School Start Times -----	128
Academic Achievement Across the Day: Evidence of Randomized Class Schedules -	138

## Press/ Articles

Sen. Portantino Press Release -----	172
Daily Democrat -----	174
Huffington Post -----	178
Inland Valley Bulletin -----	180
KTLA 5 -----	184
News 7 San Diego -----	186
Sacbee-----	190
San Diego Union- Tribune Editorial Board -----	192
The Patch -----	196
Los Angeles Times -----	198
San Francisco Chronicle -----	202
Stacy Simera, Still Sleepless in America: the Paradox of Local Control in Education	206
Healthy Children -----	210
Los Angeles Times: Why School should start later in the day -----	212
The U.S. Best High School Starts at 9:15 a.m. -----	216
Business Insider -----	218



# SB 328 (Portantino) School Start Time

## PROBLEM

The vast 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 8:07am, according to the Centers for Disease Control and Prevention.

## BACKGROUND

California sets the standard for many aspects of the school system. For example, the number of days and hours schools must be in session, what tests need to be administered, and graduation requirements. However, local school districts are provided no guidance about what school hours are most appropriate for students' safety, health and learning. Today, over twenty school districts throughout California have begun discussing or planning for later school day start times, while some school districts have already implemented the 8:30am or later start time.

The American Academy of Pediatrics issued a policy statement advising school districts to change the school day start time to no earlier than 8:30am, specifically for middle schools and high schools. Studies have confirmed that insufficient sleep in teenage adolescents poses a public health risk and has an adverse effect on academic success.

According to the American Psychological Association, reports on school districts that have adopted the policy to start the school day no earlier than 8:30am have found increased attendance rates, grade point averages, state assessments scores, college admission test scores, student attention, and student and family interaction. Additionally, studies found de-

creases in student-involved car accidents, disciplinary actions, and students sleeping during lectures.

The American Medical Association encourages physicians to actively educate parents, schools, teachers and community members about the importance of sleep for adolescent mental and physical health based on their proven biological needs.

Furthermore, the National Highway Traffic Safety Administration reported that traffic accidents are the leading cause of death for teenagers in the United States and roughly 100,000 traffic accidents each year are due to drowsiness and fatigue. Over 20 studies since 1994 using driving simulators demonstrate drowsy driving impairment being equivalent to driving legally drunk.

## BILL SUMMARY

SB 328 addresses the need for California middle and high schools to start the school day no earlier than 8:30am.

## EXISTING LAW

California requires the governing board of each school district to fix the length of the school day for the several grades and classes with the schools being maintained by the school district in accordance with specified provisions of law.

## SUPPORT

Start School Later.net (Sponsor)  
Children's Hospital Los Angeles

Version: 3/6/2017





## **REPORTS, RESEARCH and ARTICLES** about the need for **SAFE AND HEALTHY** **SCHOOL HOURS**

**Content included up to February 2017**

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Start School Later is a 501(c)(3) nonprofit organization of health professionals, sleep scientists, educators, parents, students, and other concerned citizens who are working to ensure that all public schools can set hours compatible with health, safety, equity, and learning.



# INTRODUCTION

The majority of our nation's public schools require students to be in class at times that are incompatible with adolescent sleep needs and patterns. Nearly 10 percent of U.S. high schools currently start before 7:30 a.m., 40 percent before 8 a.m., and only about 15 percent after 8:30 a.m. Bus pick-ups begin at around 5:30 a.m. in some districts, so teens must wake at 5 or 6 a.m. to get to school on time.

These early hours, set in the mid-20th century largely to save money on buses, interfere with the quality, quantity, consistency, and timing of adolescent sleep and create a [huge sleep debt](#) every week of the school year. That is why both the American Academy of Pediatrics and the U.S. Centers for Disease Control and Prevention now recommend that middle and high schools start class no earlier than 8:30 a.m.

The health, safety, and equity benefits of starting middle and high school at times more in-sync with the sleep needs of students are irrefutable. The benefits include:

- Improved [alertness, memory, attention, and cognitive processing skills](#)
- Improved [academic performance](#) that may be twice as great in disadvantaged students
- Reduced [tardiness, truancy, and drop-out rates](#)
- [More sleep per night](#) and reduced fatigue
- Reduced [depression, anxiety](#), and [suicidal thoughts](#) and behaviors
- Improved [athletic performance and fewer athletic injuries](#)
- Reduced risk of [obesity, eating disorders, and diabetes](#)
- [Improved mood and impulse control](#)
- [Stronger immune system](#)
- Reduced risk of [stimulant use, substance abuse, and high-risk health behaviors](#), especially during unsupervised afternoon hours
- Reduced [delinquency](#)
- Increased visibility during commutes to school, fewer [car crashes](#), and better [psychomotor performance](#)
- Long-term economic and equity benefits. For example, a report published by the [Brookings Institution](#) estimates that early school start times reduce performance among disadvantaged students by an amount equivalent to having a highly ineffective teacher and that moving bell times an hour later would result in higher future lifetime earnings at a benefit:cost ratio of at least 9:1.

The need for safe and healthy K-12 school hours is a national public health concern that is still being treated like a negotiable school budget item. Returning to later, healthier, safer, evidence-based school hours is a reform with the [potential to improve the health, safety, and academic achievement of all students, immediately and often at low or even no cost](#). To do so, however, school communities need help recognizing that sleep and sleep-friendly school hours are critical matters of child health and safety.

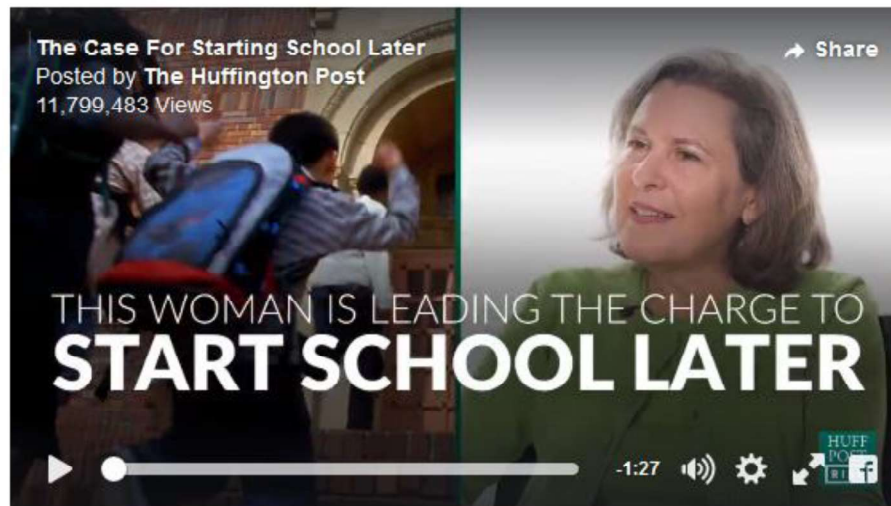
**Terra Ziporyn Snider, Ph.D.** Executive Director and Co-Founder, Start School Later  
terra@startschoolater.net (June 2016)



## THE CONTENTS OF THIS PACKET

- The materials in this packet are examples of the reports, research and articles that have been published about school start times and the need for safe and healthy school hours.
- The PDFs and screenshots gathered here are provided for convenience. Start School Later encourages readers to visit the original source documents when able.
- The contents are generally organized by the most prominent or recent studies and articles first followed by materials in alphabetical order by source.
- Among the multi-media materials that exist on this topic is the following Huffington Post video featuring the Start School Later movement and its co-founder, Terra Ziporyn Snider. Watch the video at <http://rise.huffingtonpost.com/watch/case-starting-school-later> or by visiting the home page of [www.startschoollater.net](http://www.startschoollater.net)

Why do we need healthy school hours? Terra Ziporyn Snider explains on **HuffPost RISE**.



# Why We Must - and Can - Restore Safe & Healthy School Hours

From [www.startschoollater.net/why-change](http://www.startschoollater.net/why-change)

Search



**Returning to later, healthier, safer, evidence-based school hours is a reform with the potential to improve the health, safety, and academic achievement of all students. What are we waiting for?**

## Why is this a problem?

Sleep experts have determined a shift in sleep cycles (circadian rhythms) beginning in adolescence that makes it more difficult for most adolescents to fall asleep as early as younger children or older adults. Typical sleep cycles begin around 11 p.m. for teenagers and continue through 8 a.m.. This means that an early wake-up call (5 or 6 a.m. to allow many teens to catch buses or commute to early-start schools) not only allows 6 or 7 hours of sleep per school night at most but also requires students to wake up in the middle of deep sleep. According to most sleep experts, most adolescents need about 9 hours of sleep per night. Today nearly 2/3 get under 8, and 2/5 get under 6 hours of sleep per night.

Nearly 10% of U.S. high schools currently start before 7:30 a.m., 40% start before 8 a.m., and only about 15% start after 8:30 a.m. Over 20% of U.S. middle schools start class at 7:45 a.m. or earlier. Bus pick-ups start shortly after 5:30 a.m. in some districts, and teens must wake at 5 or 6 a.m. to get to school on time. Meanwhile, the school day ends in the early afternoon, sometimes even before 2 p.m. These schedules are out-of-sync with the sleep needs and patterns of middle and high school students, whose brains and bodies are still growing, and create a huge sleep debt every week of the school year.

**Early school hours PREVENT many students and young teachers from getting the 9 or so hours of sleep per night that most teenagers and young adults need.** The health, safety, and equity benefits to starting middle and high school at times more in sync with the sleep needs and patterns of students are irrefutable.

## History and Status Quo

A hundred years ago most schools (and places of business) started the day around 9 a.m. In the 1970s and 1980s, however, many schools shifted to earlier hours. Back then the importance of sleep and the nature of the adolescent sleep shift weren't understood, and the cost savings of running the fewest possible buses in three cycles was appealing. Even schools that didn't run buses often found it helpful to move start times earlier so that after-school schedules coordinated with those of nearby schools. As a result, many students today are asked to go to school on a "morning shift" schedule, one that requires that they be in class much earlier than many of their parents and grandparents might have been. When public school times change, the whole community's rhythms change: "after" school stretches to four hours (and fills up with activities) or kids are unsupervised during the peak period for adolescent crime and risky behavior until the typical adult workday ends. Elementary schools start as late as 9:15 or 9:30, forcing working parents to send their young children to before-school care as well as after-care. Families whose children are in multiple school levels often have start and end times that span two hours in the morning and another two hours in the afternoon. The cost is being borne by students and their families.



## Health Impact

Since the 1990s, sleep researchers and other health professionals have been telling us that these early school hours are harming children. It's not just the numbers of hours of sleep, but also the timing of sleep that is required for optimal health. Sleep deprivation's impacts include: weight gain and eating disorders and increased risk of obesity, cardiovascular problems, and diabetes; reduced immunity; depression; anxiety; substance abuse; mood swings; behavior problems; suicidal ideation; and potential impacts on brain development.

## Safety

Kids are out walking to the bus or driving to school in the dark for most of the school year in many communities. With few adults around, they are at risk. Drowsy driving increases - for our newest drivers. Teens released in the early afternoon (sometimes well before 2 p.m.!) have hours of unsupervised time until the typical adult work day ends. Sleep deprivation increases risk-taking behavior, substance abuse, and impedes judgment and decision-making ability.

## Equity and Achievement Gap

Private schools rarely start earlier than 8 a.m. - and even those that start this early do so primarily to accommodate community life that centers on early-starting public schools. Parents with means can pull their children out of early-starting schools or they can choose to drive them to school or provide them with cars to give their children extra sleep in the mornings. They can drive provide late rides to school and absence notes on occasion to overcome the health, safety, and learning impact of chronic sleep deprivation. Families with fixed work schedules or lacking transportation aren't able to help their kids if they miss the bus and thus put their children at risk of tardiness or absence. As a result, children from disadvantaged backgrounds not only risk higher rates of tardiness and truancy, but also higher rates of dropping out of school - potentially increasing the achievement gap. When school start times are moved later, not only do rates of tardiness, truancy, absenteeism, and dropping-out decline, but improvements in academic achievement are nearly twice as high in students from economically disadvantaged homes.

## School Success

Kids who are tired can't learn at their best, and sleep deprivation impairs learning, memory, and attention as much as it impairs health and overall well-being. Academic improvements have been shown, and overall school climate has been measurably improved when high schools have restored later start times. Teachers have commented extensively about the improvement in the classroom environment when students are more alert, less moody, and less likely to sleep in class.

## Successful Change

Hundreds of schools around the United States have restored later start times, and many more never moved to extremely early hours in the first place. The schools that have found affordable, feasible ways to do so have been both large and small. Some have seen cost-savings by redesigning transportation systems more efficiently and applied those cost-savings to any expense incurred by re-scheduling. These districts can say they looked at the science of what's best for the students and made the change accordingly. They are seeing large and small benefits to physical and mental health, learning, attendance, graduation rates, car crashes, and overall student well-being.