

**Agudath
Israel
of Colorado**
אגודת ישראל בקולורדו

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Rabbi Yossi Kaplan
Director

TO: Honorable Members of the Senate Committee on State, Veterans And Military Affairs

FROM: Rabbi Yossi Kaplan

DATE: April 11, 2022

SUBJECT: HB – 1297 Permanent DST

I write on behalf of the Colorado office of Agudath Israel of America, a national Orthodox Jewish organization, in regard to HB-1297, legislation that has passed the House and will now be considered by the Senate. The bill would permanently extend Daylight Savings Time (DST) throughout the year. We take this opportunity to share with you several concerns we have in regard to this legislation, which we hope will be *rejected* by the Senate.

In the early 1970s, with the goal of conserving energy, the extension of DST was implemented on a year-round basis. After a relatively short experiment, however, Congress decided to repeal the measure - due to the public outcry and as it was reportedly found that the change resulted in only a 1% savings of the nation's energy consumption.

Children's Safety- We note from past experience that it was not only the disappointing result that engendered opposition to the measure, it was an assessment of the overall benefits versus the high costs involved - *the safety of our children*. And this, today, remains our greatest concern. As a representative of Orthodox Jewish schools, we shared the views of those in the larger school community that the switch to year-round DST would cause many of America's schoolchildren to head for school - by car, by foot, by bicycle, or by bus - in the pre-sunrise darkness. As was demonstrated when the earlier extension was put into effect, this is a prescription for trouble. At that time, there were numerous reported incidents of children being injured and assaulted as they traveled to school in the pitch-black streets. It is not unreasonable to assume that the dangers were greatest during those weeks when sunrise is at its latest and the period of darkness is at its longest. This concern was voiced loudly and the danger was one of the key reasons that the law was repealed so quickly. Extending DST throughout the year will undoubtedly bring back those risks and put Colorado children in jeopardy.

This concern has particular relevance to Orthodox Jewish Americans, who have special reason to be apprehensive for the safety of children going to school before the morning light. This is so for two reasons: First, some of our Jewish schools begin as early as 7:30 a.m. Second, because our schoolchildren do not have access to publicly-financed busing, there will be a disproportionate number of our sons and daughters walking or bicycling to school. They will be among those at greatest risk.

Whatever benefit that might accrue due to extended DST pales in comparison to the cost in safety to our children.

Jewish Religious Practice- We would also like to bring to your attention, in addition to the above and among the various reactions you will no doubt receive, an unexpected and surely unintended consequence of the legislation - ***the effect the change will have on a fundamental religious practice of the observant Jewish community.***

In Jewish law, morning prayers, and the rituals associated with them, are regulated in numerous ways. One aspect of this regulation is that certain prayers (i.e., the Shema and the Amida) must be recited no earlier than at specified times. The same is true with the rituals that must be performed (i.e., the donning of the *talis* - prayer shawl - and *tefillin* - phylacteries) in connection with prayer. The schedule for synagogue services is typically set to accommodate these time requirements.

The generally accepted and observed time for the recitation of the Amida - the central component of the morning prayers - is after sunrise. The time for reading the Shema, and for donning of the *talis* and *tefillin*, is no earlier than one hour prior to sunrise, and ideally even closer to sunrise. Thus, services generally begin shortly before sunrise for performance of the rituals connected to the service and to recite the Shema and preliminary prayers, and often extend past sunrise for recitation of the Amida and concluding prayers. The consequence of these requirements is self-evident: the later sunrise occurs, the later services must begin. And an hour change in the clock will produce an hour delay in the services.

In practical terms, in circumstances of late sunrises - when people are rushing to work, school, etc. - services would begin after dawn and last in total approximately 40-60 minutes, which would include special occasions when additional prayers are added to the service.

We have preliminarily investigated this matter in regard to several cities in Colorado and have seen that Permanent DST would delay sunrise with the following results:

- Aspen (8:28); Broomfield (8:23 a.m.); Denver (8:22 a.m.); Colorado Springs (8:19).
- Of these, a considerable number of days will find late sunrise occurring: Aspen (86); Broomfield (76); Denver (74); Colorado Springs (69).

Honorable Members of the Senate Committee on State, Veterans And Military Affairs
April 11, 2022

It is clear from these examples that the extension of DST will create an extreme hardship on observant Jews. Given the length of morning prayer services, together with the length of the average commute to the workplace, it would be extraordinarily difficult - if not impossible - to arrive on the job by 9:00 a.m. For those whose jobs require them to report earlier than 9:00 a.m. - as many do - the change in DST would be even thornier. (We would also point out that Jewish elementary and secondary schools that incorporate prayers into the school day would find that the curriculum and class schedule would be seriously disrupted.)

With a change in DST, and the later sunrise, the times for prayers and their accompanying rituals will be disrupted - which, in turn, will put into jeopardy their proper fulfillment, discourage synagogue attendance, and result in late arrival for work. Jewish religious and professional life will be deeply upended.

We bring these concerns to your attention in the hope that you will consider the implications of adopting year-long DST in HB-1297. There are serious consequences here for the safety of Colorado's schoolchildren and for Jewish religious practice. We thank you for your consideration and urge you to reject the legislation.

Sincerely,



Rabbi Yossi Kaplan
Director, Agudath Israel of Colorado

Senate State, Veterans, & Military Affairs
 04/12/2022 02:00 PM
 HB22-1297 Daylight Saving Time Year Round
 Typed Text of Testimony Submitted

Name, Position, Representing	Typed Text of Testimony
Grant Denn Against Self	<p>The science is in: and Daylight Saving Time is bad for everyone. It forces people to arise well before their natural hour, as well as wastes energy. As a professor, I see a lot of teenagers in my morning classes and in March when DST kicks in I see a lot more absences than when there's no DST. Sleep scientists are against it, as are the majority of the public. This experiment was tried in 1974 when the entire US went on DST and there was such a universal rejection of it they repealed the act the next year.</p> <p>As an astronomer, I can tell you of the historical precedence, and that the sun should be close to overhead at noon. Ante Meridiem (AM) MEANS before noon, where "Meridiem" refers to the line that runs north-south over our heads (called the meridian.) When the Sun is on the east side of that, it's AM and when it's on the west side, it's PM (Post Meridiem).</p> <p>If people want to get up an hour early to go to work, that's their prerogative, but you should not legislate anti-scientific mandates for the rest of us.</p> <p>Thank you- Grant Denn Professor of Physics MSU Denver</p>
Cris Luengo Against Self	<p>I am against permanent DST.</p> <p>The US tried permanent DST in 1974, people hated it. Nobody wants to wake up in the dark in the winter.</p> <p>In a nutshell, DST is a stupid trick to get people to wake up earlier. It has no benefits other than making people think they have longer evenings, and lots of drawbacks. Instead, companies could change their operating hours during the summer.</p> <p>Science agrees on this one: forcing people to wake up early is bad for health. No benefits claimed in favor of permanent DST are worth risking the health of your population for.</p> <p>Permanent Standard Time is the easy and healthy way to end clock changes. Please do the right thing for Colorado!</p>



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2022 April 11

Colorado Senate
Colorado General Assembly
Denver, Colorado

Re: No on HF-1297 – Permanent DST Harm Children & Farmers

Dear Honorable Senators,

Please oppose HB-1297, permanent Daylight Saving Time—a policy that has repeatedly failed with loss of money and lives. Please support instead SB-135, permanent Standard Time—for health, safety, education, and economy.

Permanent DST would wake constituents an hour early relative to sunrise every weekday from November through March. It would delay Colorado sunrises to 8:38am, and past 8am up to 3.3 months—thereby sending most residents to school or work in the dark during winter. It would revert benefits of starting school later.^{[Borisenkov][Cell][Skeldon]} It would rob morning daylight needed by farmers.^[Schlanger] Support for permanent DST historically reverses into opposition when experienced. Permanent DST has failed several times; it cost children's lives in 1974.^{[BBC][Ripley][Yorkshire]} It cannot end unpopular clock changes, as it is forbidden by the Uniform Time Act (15 USC §260a).

Moving clocks to DST acutely deprives sleep. Leaving clocks on DST chronically deprives sleep (estimated average 19 minutes nightly).^{[Giuntella][Roenneberg]} Artificial delay of sunrise by one hour continually manifests as significant increases in accidents, disease (certain cancers up 12–36%), and healthcare costs, and as significant decreases in learning, productivity, and earnings (individual wages down 3–5%).^{[Gibson][Giuntella][Gu][Roenneberg]} It's not just clock change that harms, but also DST's forced early waking.

Permanent Standard Time instead would protect start times for schoolchildren, farmers, and most working adults, by letting most people sleep naturally past sunrise year-round.^{[Borisenkov][Cell][Schlanger][Skeldon]} Standard Time preserves the morning sunlight needed daily by human biology. Its benefits to circadian health improve immunity, longevity, mood, alertness, and performance in school, sports, and work. Its benefits prevent traffic deaths, lower crime, and reduce chronic illnesses.^{[AASM][Juda][SRBR]} The most consistent professional polling shows general public preference for Standard Time.^[AP] Permanent Standard Time is pre-approved by the Uniform Time Act.

Scores of organizations—representing millions of researchers, physicians, psychologists, teachers, parents, and community leaders—oppose DST and endorse permanent Standard

Time. Among these are the American College of Chest Physicians, National Safety Council, American Academy of Sleep Medicine, National PTA, American College of Occupational & Environmental Medicine, Start School Later, and many more state, national, and international groups.^{[AASM][CSS][NSF][SRBR]}

Please hear the consensus of doctors, teachers, and history. Save time, money, and lives. Oppose permanent DST, and support permanent Standard Time instead.

Sincerely,



Jay Pea
President

jay@savestandardtime.com

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Endorsements of Permanent Standard Time as the Better Year-Round Clock

The following parties reject permanent Daylight Saving Time and endorse permanent Standard Time as the better year-round clock. These are not implied to be endorsements of the Save Standard Time entity.

Organizations (non-comprehensive list)

American College of Chest Physicians
American Academy of Sleep Medicine
National PTA
Sleep Research Society
American Academy of Dental Sleep Medicine
Society for Research on Biological Rhythms
Society of Behavioral Sleep Medicine
Bloomberg Opinion
Agudath Israel of America
Indiana State Medical Association
Maryland Association of Boards of Education
California Sleep Society
Kentucky Sleep Society
League of Women Voters of Delaware County
Tennessee Sleep Society
Regional Adolescent Sleep Needs Coalition
Capitol Neurology
Dakota Sleep Society
Minneapolis Star Tribune
The Daytona Beach News-Journal
Agudath Israel of California
Agudath Israel of Maryland
Agudath Israel of Florida
Ohio Bicycle Federation
Stephens Memorial Observatory
Canadian Sleep Society
Canadian Society for Chronobiology
Spanish Sleep Society
Daylight Academy
Good Light Group
European Biological Rhythms Society
Australasian Chronobiology Society
Francophone Chronobiology Society
German Teachers' Association
Dutch Society for Sleep-Wake Research
Chronobiology Lab Groningen
National Safety Council
National Sleep Foundation
American College of Occupational Medicine
World Sleep Society
Start School Later
Society of Anesthesia & Sleep Medicine
American Academy of Cardiovascular Sleep Med
Rabbinical Council of America
Anne Arundel County Public Schools
Florida PTA
Northwest Noggin Neuroscience
Wisconsin Sleep Society
Missouri Sleep Society
Hampden District Medical Society
Maryland Sleep Society
Southern Sleep Society
Michigan Academy of Sleep Medicine
The Oregonian
South Florida Sun Sentinel
Rabbinical Council of California
California Islamic University
Agudath Israel of Chicago
Cuyahoga Astronomical Association
Adath Israel San Francisco
Campaign to Opt Out of DST in Texas
Association of Canadian Ergonomists
Solaris Fatigue Management
Society for Light Treatment & Biological Rhythms
B-Society
International Alliance for Natural Time
European Sleep Research Society
Portuguese Sleep Association
French Society for Sleep Research & Medicine
Sleep Medicine Association Netherlands
Curtis Clock Lab

Individuals (non-comprehensive list)

Raúl Aguilar-Roblero MD PhD, Mexico
Konstantin V Danilenko MD PhD, Novosibirsk, Russia
Elizabeth B Klerman MD PhD, Boston, Massachusetts
Michael T Lam MD PhD, San Diego, California
Michael McCarthy MD PhD, San Diego, California
Thomas E Nordahl MD PhD, Davis, California
David K Welsh MD PhD, San Diego, California
Amir Zarrinpar MD PhD, San Diego, California
Salman Ahsan PhD, San Jose, California
Shimon Amir PhD, Montreal, Quebec
Sonia Ancoli Israel PhD, San Diego, California
Michael Antle PhD, Calgary, Alberta
Susanna Barry PhD, Cambridge, Massachusetts
William Bechtel PhD, San Diego, California
Mikhail Borisenkov PhD, Moscow, Russia
Joseph Boyd PhD, Temecula, California
Hugo Calligaro PhD, San Diego, California
Oscar Castanon-Cervantes PhD, Atlanta, Georgia
Archana G Chavan PhD, Merced, California
Joanna C Chiu PhD, Davis, California
Scott Cookson PhD, San Diego, California
Jason DeBruyne, PhD, Atlanta, Georgia
Grant Denn PhD, Colorado
Heinz Freisling MSc PhD, Lyon, France
Frederic Gachon PhD, St Lucia, Queensland, Australia
Karen L Gamble PhD, Birmingham, Alabama
Susan S Golden PhD, San Diego, California
Marijke CM Gordijn MS PhD, Netherlands
Bill Griesar PhD, Portland, Oregon
Chelsea Gustafson PhD, Portland, Oregon
Liz Harrison PhD, San Diego, California
Dietrich Henckel PhD, Germany
Erik Herzog PhD, St Louis, Missouri
Myriam Juda PhD, Vancouver, British Columbia
Thomas Kantermann PhD, Essen, Germany
Paul Kelley PhD, Milton Keynes, United Kingdom
Achim Kramer PhD, Germany
Camilla Kring PhD, Copenhagen, Denmark
Katja Lamia PhD, San Diego, California
Andy LiWang PhD, Merced, California
Travis Longcore PhD, Los Angeles, California
Emily Manoogian PhD, San Diego, California
Peter Mansbach PhD, Bethesda, Maryland
Erik Maronde PhD, Frankfurt, Germany
Girish Melkani MS PhD, San Diego, California
Martha Merrow PhD, Germany
Matt Metzgar PhD, Charlotte, North Carolina
Ralph Mistlberger PhD, Vancouver, British Columbia
João Nunes PhD, Dresden, Germany
Marie Pariollaud PhD, La Jolla, California
Ketema Paul, PhD, Los Angeles, California
Linda Petzold PhD, Santa Barbara, California
Frank Powell PhD, San Diego, California
Kendall Satterfield PhD, San Diego, California
Dorothy D Sears PhD, San Diego, California
Lori L Shemek PhD, Dallas–Fort Worth, Texas
Benjamin Smarr PhD, San Diego, California
Andrea Smit PhD, Vancouver, British Columbia
Barbara Sorg PhD, Portland, Oregon
Melissa A St Hilaire PhD, Boston, Massachusetts
Andrew Steele PhD, San Luis Obispo, California
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Gianluca Tosini PhD, Atlanta, Georgia
Roger Tseng PhD, Ames, Iowa
Judy Village PhD CCCPE, British Columbia
John Wesley White PhD, Sarasota, Florida
Daniel S Whittaker PhD, Los Angeles, California
Anna Wirz-Justice PhD, Switzerland
Wen Zhang PhD, Indianapolis, Indiana
Ying Zhang PhD, Indianapolis, Indiana
Irving Zucker PhD, Berkeley, California
Mariah Baughn MD, San Diego, California
Steven M Croft MD FAAN, Houston, Texas
Richard E Cytowic MD, Washington, DC
Mona Ezzat MD, San Diego, California
John F Gottlieb MD, Chicago, Illinois
Royan Kamyar MD, La Mesa, California
Jack Kruse DMD MD, New Orleans, Louisiana
Beth Malow MD MS, Brentwood, Tennessee
Melody T McCloud MD, Atlanta, Georgia
Andrew Spector MD, Durham, North Carolina
Tessa Sugarbaker MD MFT, San Francisco, California
Nathaniel F Watson MD MSc, Seattle, Washington
Irving Lebovics DDS, Los Angeles, California
Lisa Alexia PA-C, Alaska
Prof Stacey Harmer, Davis, California
Janet Huff LPC, Shreveport, Louisiana
Betty Jung MPH RN MCHES, New Haven, Connecticut
Gayle Kahn Friedman LCSW, Studio City, California
Lynn McGovern MSc, Ireland
Angela Miller MA BSEd, Springfield, Missouri
Prof Kurt Niel, Grieskirchen, Austria
Kevin Spehar, Baltimore, Maryland
Peter Varfalvy MSc, Quebec
Elizabeth Wellburn MA, Victoria, British Columbia
John de Graaf, Seattle, Washington
Fabian Mohedano, Barcelona, Spain

Individuals represent personal views in endorsement of permanent Standard Time policy; they do not endorse as representatives of their employers.

REJECT PERMANENT DAYLIGHT SAVING TIME

Forces early waking. Decreases immunity and alertness. Repeat failure.

Most work/school starts at 8am.
How would you rather start your day half the year?



Permanent Standard Time is the safest, healthiest, quickest end to clock change.



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8:03am average school start in the US. CDC, US ED, SASS, 2015. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a1.htm>
7:55am median work arrival in the US. 538, ACS, USCB, 2014. <https://thetwentyeight.com/features/which-cities-sleep-in-and-which-get-to-work-early/>

The US tried permanent DST in 1974.

Several children's lives were taken by sleep-deprived drivers.

<https://www.nytimes.com/1974/01/31/archives/schools-ask-end-to-daylight-time-pressure-follows-success-in-easing.html>



7:30am Daylight Saving Time, Los Angeles

Photograph by John Malmin

Why repeat bad history? Permanent Standard Time is the safest and quickest way to end clock changes.



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"Permanent Standard Time is the only fair, viable option.

"...Permanent Daylight Saving could create real health/safety issues.

Humans require adequate morning light so that our internal biological rhythms synchronize properly to local time. Lack leads to metabolic disorders, depression, cardiovascular disease..."

**Chancellor Gene Block PhD, UCLA
Prof Johanna Meijer PhD, Leiden University**

<https://newsroom.ucla.edu/stories/who-wants-to-go-to-work-in-the-dark>



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"Permanent Standard Time is the best choice to match our sleep-wake cycle.

Daylight Saving Time results in more darkness in the morning and more light in the evening, disrupting the body's natural rhythm."

**Muhammad Adeel Rishi MD
Mayo Clinic & American Academy of Sleep Medicine**

<https://aasm.org/american-academy-of-sleep-medicine-calls-for-elimination-of-daylight-saving-time/>



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"The human circadian system does not adjust to Daylight Saving Time.

Sleep becomes disrupted, less efficient, and shortened... Permanent Standard Time is the healthier, more natural choice."

**Nathaniel F Watson MD MSc
Neurology Professor, University of Washington, Seattle**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6557642/>



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"Permanent Daylight Saving will undermine any benefits of shifting school start time later.

"...A required wake time of 7am during Daylight Saving leads to the same degree of misalignment as a required wake time of 6am during Standard Time. With permanent Daylight Saving, schools would need to delay start times by one hour during winter just to maintain the status quo!"

**Anne Skeldon PhD
Professor of Biology, University of Surrey**

<https://www.eurekalert.org/news-releases/771715>



SAVE STANDARD TIME

Permanent daylight saving time is a dumb idea, a CU sleep expert says

Extra-dark winter mornings could mess with our circadian rhythms. But if you have to pick one, standard time is the way to go.

John Ingold 4:12 AM MDT on Mar 29, 2022

Credibility:  Original Reporting  Sources Cited

On the darkest morning of winter, the sun rises across Colorado — depending on where you are — sometime between about 7:05 a.m. and 7:40 a.m.

You roll out of bed, get dressed, make coffee or eat some breakfast. If you are like the average person in Denver, the sun is probably rising along with you as you do these things.

Now imagine that your morning routine stays the same, but the sun stays in bed an hour later. You would head off to work in the dark. School for many children would begin in the dark.

This is the situation Colorado would be facing during the darkest days of winter if the nation switched to permanent daylight saving time, and it's why University of Colorado sleep science professor Kenneth Wright thinks the idea is so horrible.

“Every morning, sunlight helps us to reset ourselves,” said Wright, who teaches integrative physiology and the head of the university’s Sleep and Chronobiology Lab. “And that way we are in sync with the 24-hour light-dark cycle of Earth.”

Standard time — what Wright believes the country should be on full-time — roughly tracks the sun in each time zone, with the sun at its highest point in the sky around noon. Colorado and most other states observe standard time during the winter months. Daylight time, meanwhile, pushes the clock ahead an hour during the spring, summer and fall, meaning people will see later sunsets — something advocates for changing to permanent daylight time tout as a benefit that will allow people to be more active after work or school.



University of Colorado Professor Kenneth Wright. (Provided by CU)

The idea of switching Colorado to permanent daylight saving time is an old one, with efforts in the state legislature stretching back more than a decade. On Monday, a Colorado state House committee gave approval to the latest effort — a bill that would make daylight time permanent in Colorado but only if either the federal government authorizes it or if four other states in the Mountain time zone do the same.

But the idea of going to daylight saving time full-time really gained new momentum earlier this month when the U.S. Senate passed a measure to make daylight saving time permanent across the country.

Wright said there is no debate about the idea among sleep experts globally. At the same time the Senate voted to make daylight saving permanent, Wright was in Rome, attending World Sleep 2022, an annual conference that is so big that the World Sleep Society dubs it a “congress.”

The reaction among attendees at the meeting? It’s a really bad idea.

“There is expert consensus here that, if we have to choose one of these, permanent standard time is the healthier choice,” Wright said.

Ending the spring forward

Wright wants to be clear: He is not in favor of clock-switching, the most loathsome feature of the nation’s annual change from standard time to daylight time and back again.

A robust body of research shows that the annual springing forward, when we shift clocks an hour ahead at the start of daylight saving time, causes a surge in fatal car accidents, heart attacks and strokes.

“No question, we need to stop the change, going back and forth,” Wright said.

Changing to permanent daylight saving time will compound the problems by interrupting our bodies’ natural circadian rhythms, Wright said.

As he explains it, light in the morning is different to our bodies than light at night. The morning light signals to our circadian clocks that it’s time to get moving. The ebbing of evening light tells our clocks it’s time to slow down. So stealing light from the morning to give to the evening, especially in winter, pushes that clock rhythm back.

This would likely lead to later bedtimes in the winter, especially when coupled with the impact of artificial light at night on sleep. (A CU study published earlier this year found that even minor exposure to light in the hour prior to bedtime can disrupt the sleep of preschoolers.)

This might not be such a big deal if our schedules were fungible and we could just plan to wake up later in the morning. But they’re not. School start times are fixed, as are most people’s work start times. Both could be changed, of course, but it would require a big cultural movement to do so.

That means, when alarm clocks start going off during those dark morning hours, our circadian rhythms would likely rather we still be fast asleep. The resulting sleep deprivation could lead to greater risk for a litany of health problems, from weight gain, heart attacks and cancer to poor mental health and substance abuse.

“This change,” Wright said of a move to permanent daylight saving time, “is likely going to make these types of problems worse.”

Be glad we're not Idaho

Colorado, though, wouldn't get the worst of it if the nation moved to full-time daylight time. That's because the state sits on the eastern side of the Mountain time zone.

The latest the sun will rise in Denver this year is 7:32 a.m., which will happen in early November right before the clocks fall back to standard time. Things stay darker a little longer as you go farther west and north. But, even in Grand Junction, the latest the sun will rise this year is 7:45 a.m.

If daylight saving time were made permanent, those latest-sunrise times would change to 8:19 a.m. and 8:31 a.m., respectively, and they would fall right around the first of the year. Wright said switching to daylight time year-round would mean about two months out of the year when the sun wouldn't rise before 8 a.m. in the state. (It wouldn't change the latest sunset times because those occur in summer when the state is already on daylight time, but it would push the earliest sunset times back an hour — to about 5:36 p.m. at the earliest in Denver, occurring in early December.)

This year, with both standard and daylight time in place, Denver will see 107 days without a sunrise before 7 a.m. If daylight saving were made permanent, that number would rise to 166 days without a sunrise before 7 a.m.

The number of days with late sunset times in Denver — those after 7 p.m. — would remain virtually unchanged under permanent daylight time, rising to 198 this year instead of the 193 we will see under the status quo. There would be a greater increase in the number of days with sunset times after 6 p.m. — 291 under permanent daylight time, instead of 238 with the status quo.

This is nothing, though, compared to what people in Boise, Idaho, on the western edge of the Mountain time zone, would experience. There, residents would endure roughly two months out of the year without a sunrise before 9 a.m.

But, to Wright, this just underscores the problem with permanent daylight saving time. Some places will see greater impacts than others, but all places will see more darkness on winter mornings.

“It's not that we won't be impacted, we certainly will be impacted,” he said. “And others further west they will be impacted more by this. That doesn't mean that because we're less impacted is the right thing to do.”

It appears that Congress might be starting to come around to that thinking. At last report, the Sunshine Protection Act — the bill passed in the Senate to make daylight saving permanent — is facing a much, ahem, dimmer outlook in the U.S. House.



John Ingold

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American Academy of Sleep Medicine calls for elimination of daylight saving time

DARIEN, IL – Public health and safety would benefit from eliminating daylight saving time, according to a [position statement](#) from the American Academy of Sleep Medicine.

The AASM supports a switch to permanent standard time, explaining in the statement that standard time more closely aligns with the daily rhythms of the body's internal clock. The position statement also cites evidence of increased risks of motor vehicle accidents, cardiovascular events, and mood disturbances following the annual "spring forward" to daylight saving time.

"Permanent, year-round standard time is the best choice to most closely match our circadian sleep-wake cycle," said lead author Dr. M. Adeel Rishi, a pulmonology, sleep medicine and critical care specialist at the Mayo Clinic in Eau Claire, Wisconsin, and vice chair of the AASM Public Safety Committee. "Daylight saving time results in more darkness in the morning and more light in the evening, disrupting the body's natural rhythm."

The position statement, published online as an accepted paper in the *Journal of Clinical Sleep Medicine*, outlines the acute effects of daylight saving time, which range from increased risk of stroke and hospital admissions to sleep loss and increased production of inflammatory markers, one of the body's responses to stress. In addition, studies show that traffic fatalities have increased as much as six percent in the first few days following the change to daylight saving time, and a recently published research abstract found an [18 percent increase in adverse medical events related to human error](#) in the week after switching to daylight saving time.

"There is ample evidence of the negative, short-term consequences of the annual change to daylight saving time in the spring," said AASM President Dr. Kannan Ramar. "Because the adoption of permanent standard time would be beneficial for public health and safety, the AASM will be advocating at the federal level for this legislative change."

In July, an AASM survey of more than 2,000 U.S. adults found that [63 percent support the elimination of seasonal time changes](#) in favor of a national, fixed, year-round time, and only 11 percent oppose it. Additionally, a 2019 survey by the AASM found that [55 percent of adults feel extremely or somewhat tired](#) after the spring change to daylight saving time.

The AASM position statement on daylight saving time has been endorsed by the following organizations:

- American Academy of Cardiovascular Sleep Medicine
- American Academy of Dental Sleep Medicine
- American College of Chest Physicians (CHEST)
- American College of Occupational and Environmental Medicine
- California Sleep Society
- Dakotas Sleep Society
- Kentucky Sleep Society
- Maryland Sleep Society
- Michigan Academy of Sleep Medicine
- Missouri Sleep Society
- National PTA
- National Safety Council
- Society for Research on Biological Rhythms
- Society of Anesthesia and Sleep Medicine
- Society of Behavioral Sleep Medicine
- Southern Sleep Society
- Start School Later
- Tennessee Sleep Society
- Wisconsin Sleep Society
- World Sleep Society.

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To request a copy of the statement, "[Daylight saving time: An American Academy of Sleep Medicine position statement](#)," or to arrange an interview with an author or an AASM spokesperson, please contact the AASM at 630-737-9700 or media@aasm.org. Accepted papers, which are published online prior to their final inclusion in an issue, are not embargoed. The position statement is scheduled to appear in the Oct. 15, 2020 issue of the journal.

The monthly, peer-reviewed [Journal of Clinical Sleep Medicine](#) is the official publication of the American Academy of Sleep Medicine, a professional membership society that advances sleep care and enhances sleep health to improve lives. The AASM encourages patients to talk to their doctor about sleep problems and visit SleepEducation.org for more information about sleep, including a searchable directory of AASM-accredited sleep centers.

August 27th, 2020 | [Featured](#), [Press Releases](#)



November 5, 2021

Explore the link between daylight saving time and farming.

Daylight saving time is fast approaching, with Sunday, March 12th being the date that we “spring forward” and set our clocks ahead one hour. Do you ever wonder why we do it? You’ve likely heard that daylight saving time and farming are related, but the truth of the matter is that daylight saving time was not created by farmers. Explore the roots of the myth that daylight saving time and agriculture are connected, and find answers to questions like, “How does daylight saving time affect farmers?” below.

Myth: Daylight Saving Time was Created to Benefit Farmers

It’s a story that continues to crop up: daylight saving time was created for the agriculture industry to offer more daylight hours to work in the field, according to [a History.com article \(http://www.history.com/news/8-things-you-may-not-know-about-daylight-saving-time\)](http://www.history.com/news/8-things-you-may-not-know-about-daylight-saving-time). The truth of the matter is the agriculture industry lobbied against daylight saving time in 1919. Some believe it was then that farmers became associated with daylight saving time, even though they were only involved because they were against it.

The first implementation of daylight saving time occurred in Germany in 1916 as a way to conserve coal usage during World War I. The U.S. followed suit in 1918, and the implementation has come and gone over the years. It has been particularly popular as a means to conserve energy with the thinking being that if the summer sunlight lasts longer into the evening, it is one less hour of darkness that will need to be lit, cooled, or heated.

Daylight Saving Time and Farming

Many farmers and others in agriculture are still opposed to daylight saving time. What it actually does is disrupt a farmer’s carefully orchestrated schedule. For instance, if dairy cows are used to being milked at 5:00 a.m., moving the clock back an hour in the fall actually moves their milking time back an hour, and livestock cannot understand waiting another hour to be milked. Then, just as the cows get used to it, the milking schedule gets changed again in the spring. The milk truck is likely still coming at the same time per the clock, meaning dairy farmers can’t just change their milking times to keep it consistent for the animals.

Similarly, [daylight saving time also affects the amount of time put in by farmworkers \(/blog/the-impact-of-the-farm-labor-shortage/\)](#). If hired hands have to wait an extra hour for daylight to start working in the morning, but they still leave at the same time at night, less work is getting done. All in all, farmers would rather just use the sun and the seasons to determine milking times, planting charts, and the best time to harvest.

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NEWS RELEASE 22-APR-2019

Permanent daylight savings may cancel out changes to school start times

CELL PRESS

Moving the clock forward and then back each spring and fall usually draws plenty of complaints and questions about why such a change is necessary. As a result, several states in the U.S., including California, Washington, Florida, and North Carolina, are now considering doing away with the practice by making daylight savings time (DST) permanent.

But, researchers reporting in the journal *Current Biology* on April 22 say, permanent DST would make it harder to wake up in the winter, as it would remain dark an hour later into the morning. It would also undermine efforts in many states to give teens more time to sleep in by pushing school start times back.

"There has been a long-term, very active debate in the USA and other countries on the difficulties teenagers have in getting up for school," said Anne Skeldon, Professor of Mathematics at the University of Surrey, UK. "Similar discussions on school start times and on permanent daylight saving/standard time are happening in Europe. It seemed important to us to point out that moving to permanent daylight saving will undermine any benefits on sleep timing of shifting school start time later."

Two bills currently making their way through the Californian state legislature are a case in point. Senate Bill SB-328 Pupil Attendance: School Start Time would prohibit middle and high schools from starting earlier than 8:30 in the morning. Senate Bill AB-807 Daylight Saving Time would result in a switch to permanent DST.

Thinking through why permanent DST would negate changes in school start times is a bit tricky, Skeldon explained. That's because it requires understanding how three different times are related to each other and how they shift over the course of the year: environmental time as determined by the sun, our internal biological time (linked to actual light exposure, including sunlight), and the time that we set on our clocks.

If the clocks weren't turned back in the fall, as under permanent DST, it would mean that sunrise would come at an even later clock time than it already does during those shorter days of the winter. As a result, Skeldon and co-author Derk-Jan Dijk, Professor of Sleep and Physiology and Director of the Surrey Sleep Research Centre, write, "a required wake time of 7 a.m. during DST leads to the same degree of misalignment [between the socially required wake time and biological wake time] as a required wake time of 6 a.m. during ST. With permanent DST, schools would need to delay start times by one hour during the winter months just to maintain the status quo!"

Of course, they continued, it's possible that people living indoors under electrical lighting aren't affected that much by shifts in sunrise. But, if that's true, they point out, then it really doesn't matter what time school starts in the first place.

"If we are not entrained to solar time, switching to DST will have no impact on adolescent sleep, but Bill SB-328 delaying school start times is pointless," they write. On the other hand, "if we are completely or partially entrained to solar time, Bill AB-807 leading to permanent DST is bad for adolescent sleep (and the sleep of others) and negates the effect of later school start times."

To sort it out, more research is needed to understand how light exposure affects the sleep and biological clocks of people living in different environments. "We know that spending most of our lives inside and having the lights on late into the evening has had profound effects on when we sleep, but we still have much to learn about exactly how much this matters," Skeldon says.

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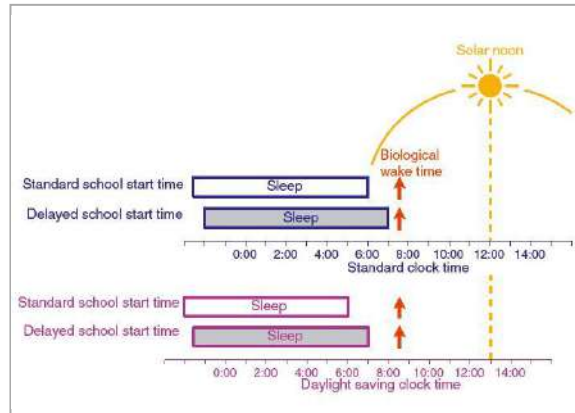


IMAGE: THIS FIGURE SHOWS THE ALIGNMENT OF SLEEP TIMING, CLOCK TIME, AND SOLAR TIME. CREDIT: SKELDON AND DIJK/CURRENT BIOLOGY