

DST Testimony.pdf

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Position: FAV



THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

SB 534 – General Provisions – Full Year Daylight Savings Time

March 10, 2022

Chairman Pinsky, Vice Chair Kagan, members of the Committee,

I am here today to present SB 534 which would signal Maryland's desire to remain on Daylight Saving Time year round. To date, [42 states](#) are entertaining or have passed legislation on the issue while two—Arizona and Hawaii—only observe their respective standard times.

Daylight Saving Time was initially implemented during World War I to save energy, but maintained unexpected popularity among Americans after the war, and was re-introduced year round during World War II for the same energy saving reasons.¹ However, with the technological advances we have realized today there is no significant energy saving associated with the time change process. What has not changed, on the other hand, is the continued popularity of Daylight Time among Americans and their desire to make it permanent.

The Federal Uniform Time Act of 1966—which codified Daylight Saving Time at the federal level—has been amended twice; both times extended the Daylight Saving period. The most recent change was a 2005 amendment which took effect in 2007. These changes to the original Act demonstrate the flexibility of time adjustment and offer precedent when considering changes at the state level. The Federal Uniform Time Act currently allows states to adopt the Standard Time of their current time zone, but not Daylight Time. The purpose of passing this bill would be to add our name to the list of states asking the federal government to amend the Act and allow us to adopt Daylight Time permanently.

Given both the sustained popularity of Daylight Saving Time since the first World War to the amending of the Uniform Time Act to today's nation-wide effort it is time Maryland joined the fight.

The problems often associated with Daylight Saving Time, most notably sleep deprivation and the lingering effects of it, are mostly due to the switch from Standard Time to Daylight Saving

¹ Steve P. Calandrillo and Dustin E Buehler, "Time Well Spent: An Economic Analysis of Daylight Saving Time Legislation," *Wake Forest Law Review*, 2008)

Time rather than the impact of a later sunset as the body eventually readjusts². Staying on one time will alleviate these negative effects.

The reasons to choose Daylight Time over Standard Time include economic benefit, traffic safety, and crime reduction. Several studies show that many crime incidents are low during morning hours and peak during late afternoon and evening hours.³ By adopting Daylight Saving Time permanently, workers will be able to be home before darkness falls. More daylight gives people the liberty of being outside after work, enjoying the daylight rather than going straight home. Anecdotally, we can think of walking down Main Street here in Annapolis at 5 during Daylight Saving Time with light for an extra hour versus during Standard Time when darkness coincides with getting off work. A State of Massachusetts study even found year-round Daylight Saving Time would lead to fewer traffic fatalities due to increased visibility during prime driving hours.⁴

Springing forward and staying there would benefit the State of Maryland, our economy, our roads, and put us in line with the rest of our country in recognizing this outdated policy. I respectfully request a favorable report.

² Jennifer L. Doleac and Nicholas J. Sanders, "Under the Cover of Darkness: How Ambient Light Influences Criminal Activity," *Review of Economics and Statistics* 97, no. 5 (2015): pp. 1093-1103, https://doi.org/10.1162/rest_a_00547)

³ Buehler/Calandrillo; Doleac/Sanders

⁴ "Report of the Special Commission on the Commonwealths Time Zone," Report of the Special Commission on the Commonwealths Time Zone § (n.d.)

testimony.pdf

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Position: FAV

I testify in favor of SB0534 to stop the time change and keep MD on DST year round.

First, the spring forward time change causes heart attacks every year. There is a 25% increase in heart attacks on the Monday following the onset of DST in March, according to a 2015 University of Michigan study.

<https://patch.com/michigan/royaloak/study-check-pulse-spring-forward-daylight-saving-time>

According to a 2016 study from Austin Smith, a 5.6% rise in traffic accidents in the week following the spring forward results in 30 deaths and \$275M in social costs per year. Americans sleep, on average, 40 minutes less on the Sunday of the DST change than on other Sundays. No sizable effects during the fall change have been detected.

<https://pubs.aeaweb.org/doi/pdfplus/10.1257/app.20140100>

In addition, a 2018 study from the Royal Society for the Prevention of Accidents shows that evening light in the winter can reduce accidents more than morning light, because more pedestrians are out and about during the evening rush hour as opposed to the morning rush hour.

<https://www.rosipa.com/media/documents/road-safety/consultation-responses/discontinuing-seasonal-changes-of-time.pdf>

SB-534 Lencz Unfavorable.pdf

Uploaded by: Alan Lencz

Position: UNF



SENATE EDUCATION, HEALTH, AND ENVIRONMENTAL AFFAIRS COMMITTEE

SENATE BILL 534

GENERAL PROVISIONS – FULL-YEAR DAYLIGHT SAVINGS TIME

TESTIMONY OF AVI LENCZ

COMMUNICATIONS COORDINATOR, AGUDATH ISRAEL OF MARYLAND

OPPOSE

Agudath Israel of Maryland speaks on behalf of the Orthodox Jewish communities across Maryland and on behalf of the 10,000 students attending 30 Jewish day schools in our great state.

Understandably, many are fed up with having to change our clocks twice a year. While in and of themselves we do not oppose "locking the clock" and eliminating seasonal time adjustments, we would like to voice concern about this bill and our opposition to the selection of Daylight Savings Time as the permanent, year-round choice.

Eliminating Standard Time would detrimentally impact our community schools and their many students. While scientific study after scientific study emphasizes the importance of adequate sleep for children and adolescents, SB-534 would force our students to wake up far before dawn, impeding their sleep patterns and negatively impacting their learning readiness and physical and emotional health. Early school commutes before daylight would increase the likelihood of accidents, as well as force students to freeze during the winter as they wait for the school bus or as they walk to school. Additionally, this bill would put even more strain on our teachers, who would have less time to prepare their lessons before class.

But beyond school-related concerns, we would like to emphasize the deleterious impact this bill would have on the Orthodox Jewish communities of Maryland because of the requirements of our faith. Our morning services, rituals, and prayers, required of all adults of our faith, are time-based. For instance, the Shema prayer, a statement and affirmation of our acceptance of G-d and His Kingship that serves as one of the centerpieces of the morning service, must be recited after dawn but before mid-morning. The Amidah prayer, a selection of blessings and supplications first recited by each individual and then repeated aloud by the prayer leader, is to be said after sunrise.

If Daylight Savings Time was to be instituted year-round, services in the winter months would not be able to start before 8, even 8:30 in the morning. As the services take between forty minutes to an hour, this would place a severe burden on members of our faith, forcing them to make the horrible choice between observance of the morning services and coming to work on time. Employers would look for any excuse to avoid hiring members of our community. Faced with shrinking opportunities, people would be forced to sacrifice their livelihoods, be false to their beliefs, or relocate.

While we do not oppose adoption of Standard Time, the adoption of Daylight Savings Time year-round would create a very difficult environment for many Marylanders. We ask you to help our state maintain its well-deserved reputation for hospitality to members of all faiths and beliefs, and report unfavorably on Senate Bill 534.

SB-534 Save Standard Time Unfavorable.pdf

Uploaded by: Jay Pea

Position: UNF



SAVE STANDARD TIME

The best clock for health, safety, education, economy, environment, civil liberties, and lasting public support.

2022 March 9

Education, Health, & Environmental Affairs Committee
Maryland Senate
Maryland General Assembly
Annapolis, Maryland

Re: SB-534: Unfavorable

Dear Honorable Senators,

Please oppose SB-534, a bill to retry permanent Daylight Saving Time, a policy that has repeatedly failed with loss of money and lives. Please recommend its amendment to permanent Standard Time, for lasting health, safety, education, and prosperity.

Permanent DST is federally forbidden by the Uniform Time Act (15 USC §260a). It would also force constituents to wake an hour early relative to sunrise, every workday from November through March. It would artificially delay Maryland sunrises to 8:39am, and past 8am up to 3.4 months. Support for permanent DST historically reverses into opposition when experienced. Permanent DST has failed several times; it cost American children's lives in 1974.^{[BBC][Ripley][Yorkshire]} No law can make winter feel like summer.

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 lets people sleep longer.^{[AASM][Juda][SRBR]} It's the natural time, defined by the sun.

Professional polling shows strong public support to end clock change, with preference for Standard Time.^[AP] Permanent Standard Time is federally permitted by the Uniform Time Act. Standard Time preserves the morning sunlight needed daily by human biology. Its benefits to circadian health improve immunity, longevity, mood, alertness, and performance at school and work. They prevent traffic deaths, lower crime, and reduce chronic illnesses.^{[AASM][Juda][SRBR]} Standard Time protects start times for schoolchildren, farmers, and most working adults, by letting citizens sleep naturally past sunrise year-round.^{[Borisenkov][Cell][Schlanger][Skeldon]}

Scores of organizations, representing millions of researchers, doctors, teachers, parents, and community leaders worldwide, oppose DST and endorse permanent Standard Time.

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

Please hear the consensus of doctors, teachers, polling, and history. Save time, money, and lives. Oppose this bill, and recommend its amendment to permanent Standard Time.

Sincerely,



Jay Pea
President

jay@savestandardtime.com

American Academy of Sleep Medicine (2020). "Call for Elimination of Daylight Saving Time". *Journal of Clinical Sleep Medicine*. <https://aasm.org/american-academy-of-sleep-medicine-calls-for-elimination-of-daylight-saving-time/>

AP-NORC (2021). "Dislike for Changing the Clocks Persists". *Center for Public Affairs Research*. <https://apnorc.org/projects/dislike-for-changing-the-clocks-persists/>

BBC (2014). "Russia: Putin Abolishes 'Daylight Savings' Time Change". *BBC News*. <https://www.bbc.com/news/blogs-news-from-elsewhere-28423647>

Borisenkov et al (2016). "Seven-Year Survey of Sleep Timing in Russian Children and Adolescents". *Biological Rhythm Research*. https://www.researchgate.net/publication/307547013_Seven-year_survey_of_sleep_timing_in_Russian_children_and_adolescents_chronic_1-forward_transition_of_social_clock_is_associated_with_increased_social_jetlag_and_winter_pattern_of_mood_seasonality

Canadian Sleep Society (2021). "Position Statement of the Canadian Sleep Society on the Practice of Daylight Saving Time". *Canadian Sleep Society News*. <https://css-scs.ca/position-statement-of-the-canadian-sleep-society-on-the-practice-of-daylight-saving-time-dst/>

Cell Press (2019). "Permanent Daylight Savings May Cancel Out Changes to School Start Times". *EurekAlert!*. https://www.eurekalert.org/pub_releases/2019-04/cp-pds041819.php

Gibson & Shrader (2015). "Time Use and Productivity: The Wage Returns to Sleep". *Williams College Department of Economics Working Papers*. <https://econpapers.repec.org/paper/wilwileco/2015-17.htm>

Giuntella & Mazzonna (2017). "Sunset Time and the Economic Effects of Social Jetlag Evidence from US Time Zone Borders". *Journal of Health Economics*. <https://www.sciencedirect.com/science/article/abs/pii/S0167629618309718>

Gu et al (2017). "Longitude Position in a Time Zone and Cancer Risk in the United States". *Cancer Epidemiology, Biomarkers & Prevention*. <https://cebp.aacrjournals.org/content/26/8/1306>

Jin & Ziebarth (2019). "Sleep, Health, and Human Capital: Evidence from Daylight Saving Time". *The National Bureau of Economic Research*. <https://ideas.repec.org/p/yor/hectdg/15-27.html>

Juda et al (2019). "An Open Letter to the BC Government in Support of Permanent Standard Time". *Simon Fraser University*. <https://vault.sfu.ca/index.php/s/sAnv3Z4bcSwY4Gm>

National Sleep Foundation (2021). "Permanent Standard Time: A Position Statement from the National Sleep Foundation". *NSF Issues*. <https://www.thensf.org/wp-content/uploads/2021/03/NSF-Position-on-Permanent-Standard-Time.pdf>

Ripley (1974). "Senate Votes Return to Standard Time for Four Months and Sends Bill to Ford". *The New York Times*. <https://www.nytimes.com/1974/10/01/archives/senate-votes-return-to-standard-time-for-four-months-and-sends-bill.html>

Roenneberg et al (2019). "Daylight Saving Time and Artificial Time Zones – A Battle Between Biological and Social Times". *Frontiers in Physiology*. <https://www.frontiersin.org/articles/10.3389/fphys.2019.00944/full>

Schlanger (2017). "Daylight Saving Time as Americans Know It Was Instituted by Corporate Lobbies, Not Farmers". *Quartz*. <https://qz.com/1120488/daylight-saving-time-as-americans-know-it-was-instituted-by-corporate-lobbies-not-farmers/>

Skeldon & Dijk (2019). "School Start Times and Daylight Saving Time Confuse California Lawmakers". *Current Biology*. [https://www.cell.com/current-biology/fulltext/S0960-9822\(19\)30312-4](https://www.cell.com/current-biology/fulltext/S0960-9822(19)30312-4)

Society for Research on Biological Rhythms (2019). "Why Should We Abolish Daylight Saving Time?". *Journal of Biological Rhythms*. <https://srbr.org/advocacy/daylight-saving-time-presskit/>

Yorkshire (2018). "British Summer Time: Why Do We Change the Clocks?". *Yorkshire Evening Post*. <https://www.yorkshireeveningpost.co.uk/news/uk-news/british-summer-time-why-do-we-change-clocks-313791>

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.



SAVE STANDARD TIME

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. S38, ACS, USCB, 2014. <https://fivethirtyeight.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>



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



SAVE STANDARD TIME

RESTORE PERMANENT STANDARD TIME

Improves sleep. Best for health, safety, education. Federally pre-approved.

"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>



SAVE STANDARD TIME

"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/>



SAVE STANDARD TIME

"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/>



SAVE STANDARD TIME

"National PTA is opposed to Daylight Saving Time during the winter months because of the safety factor."

**Heidi May Wilson
Spokesperson for the National Parent Teacher Association**

<https://www.washingtonpost.com/science/2019/03/08/springing-forward-daylight-saving-time-is-obsolete-confusing-unhealthy-critics-say/>



SAVE STANDARD TIME



SAVE STANDARD TIME

The best clock for health, safety, education, economy, environment, civil liberties, and lasting public support.

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	National Safety Council
American Academy of Sleep Medicine	National Sleep Foundation
National PTA	American College of Occupational Medicine
American Academy of Dental Sleep Medicine	Start School Later
American Academy of Cardiovascular Sleep Med	National Education Association
American Federation of Teachers	National School Boards Association
Rabbinical Council of America	Agudath Israel of America
Indiana State Medical Association	Florida PTA
Northwest Noggin Neuroscience	California Sleep Society
Wisconsin Sleep Society	Kentucky Sleep Society
Missouri Sleep Society	Hampden District Medical Society
Tennessee Sleep Society	Maryland Sleep Society
Regional Adolescent Sleep Needs Coalition	Southern Sleep Society
Capitol Neurology	Michigan Academy of Sleep Medicine
Dakota Sleep Society	Rabbinical Council of California
Agudath Israel of California	California Islamic University
Agudath Israel of Florida	Cuyahoga Astronomical Association
Ohio Bicycle Federation	Adath Israel San Francisco
Stephens Memorial Observatory	Campaign to Opt Out of DST in Texas
Agudath Israel of Chicago	Canadian Sleep Society
Association of Canadian Ergonomists	Canadian Society for Chronobiology
Solaris Fatigue Management	World Sleep Society
Society for Research on Biological Rhythms	Society of Anesthesia & Sleep Medicine
Society of Behavioral Sleep Medicine	Society for Light Treatment & Biological Rhythms
Daylight Academy	B-Society
Good Light Group	International Alliance for Natural Time
European Biological Rhythms Society	European Sleep Research Society
Australasian Chronobiology Society	

Individuals (non-comprehensive list)

Elizabeth B Klerman MD PhD, Professor, Harvard Medical School, Boston, Massachusetts
Michael T Lam MD PhD, San Diego, California
Michael McCarthy MD PhD, Center for Circadian Biology, University of California, San Diego
Thomas E Nordahl MD PhD, Professor Emeritus, University of California, Davis
David K Welsh MD PhD, Professor Emeritus, University of California, San Diego
Amir Zarrinpar MD PhD, Assistant Professor, San Diego, California
Salman Ahsan PhD, San Jose, California
Shimon Amir PhD, Professor, Concordia University, Montreal, Quebec
Sonia Ancoli Israel PhD, Professor Emeritus, University of California, San Diego

Michael Antle PhD, Professor, Hotchkiss Brain Institute & University of Calgary, Alberta
 Susanna Barry PhD, College Mental Health Counselor & Sleep Coach, Cambridge, Massachusetts
 William Bechtel PhD, Distinguished Professor, University of California, San Diego
 Joseph Boyd PhD, Research Scientist, MilliporeSigma, Temecula, California
 Hugo Calligaro PhD, San Diego, California
 Oscar Castanon-Cervantes PhD, Assistant Professor, Morehouse School of Medicine, Atlanta, Georgia
 Joanna C Chiu PhD, Vice Chair, Department of Entomology & Nematology, University of California, Davis
 Scott Cookson PhD, Quantitative BioSciences, San Diego, California
 Jason DeBruyne, PhD, Associate Professor, Morehouse School of Medicine, Atlanta, Georgia
 Grant Denn PhD, Physics Department Chair, Metropolitan State University of Denver, Colorado
 Heinz Freisling MSc PhD, Epidemiologist, International Agency for Research on Cancer, Lyon, France
 Frederic Gachon PhD, Group Leader, Physiology of Circadian Rhythms, Institute for Molecular Bioscience
 Karen L Gamble PhD, Professor, The University of Alabama, Birmingham
 Susan S Golden PhD, Director, Center for Circadian Biology, University of California, San Diego
 Marijke CM Gordijn MS PhD, Chrono@Work, University of Groningen, Netherlands
 Bill Griesar PhD, Northwest Noggin Neuroscience Outreach Group, Portland, Oregon
 Liz Harrison PhD, Center for Circadian Biology, University of California, San Diego
 Dietrich Henckel PhD, Professor, Technical University of Berlin, Germany
 Erik Herzog PhD, Professor of Biology, Washington University, St Louis, Missouri
 Myriam Juda PhD, Researcher, Simon Fraser University, Vancouver, British Columbia
 Thomas Kantermann PhD, Institute for Labour & Personnel, FOM University of Applied Science, Essen, Germany
 Achim Kramer PhD, Professor of Chronobiology, Charité – Universitätsmedizin Berlin, Germany
 Camilla Kring PhD, Speaker, Author, & Entrepreneur, Copenhagen, Denmark
 Katja Lamia PhD, Associate Professor of Molecular Medicine, Center for Circadian Biology, UC San Diego
 Andy LiWang PhD, University of California, Merced
 Travis Longcore PhD, Institute of the Environment & Sustainability, University of California, Los Angeles
 Emily Manoogian PhD, Postdoctoral Fellow, San Diego, California
 Peter Mansbach PhD, Bethesda, Maryland
 Erik Maronde PhD, Scientist, Frankfurt, Germany
 Girish Melkani MS PhD, Associated Research Professor, San Diego, California
 Martha Merrow PhD, Professor of Chronobiology, Ludwig Maximilian University of Munich, Germany
 Matt Metzgar PhD, Clinical Professor of Economics, University of North Carolina, Charlotte
 Ralph Mistlberger PhD, Professor, Simon Fraser University, Vancouver, British Columbia
 João Nunes PhD, Biochemistry Researcher, Dresden, Germany
 Marie Pariollaud PhD, Postdoctoral Associate, Scripps Research, La Jolla, California
 Ketema Paul, PhD, University of California, Los Angeles
 Linda Petzold PhD, Professor, University of California, Santa Barbara
 Frank Powell PhD, Professor of Medicine, University of California, San Diego
 Kendall Satterfield PhD, San Diego, California
 Dorothy D Sears PhD, San Diego, California
 Lori L Shemek PhD, Health Expert & Bestselling Author, Dallas–Fort Worth, Texas
 Benjamin Smarr PhD, Professor of Bioengineering & Data Science, University of California, San Diego
 Andrea Smit PhD, Researcher, Simon Fraser University, Vancouver, British Columbia
 Barbara Sorg PhD, Legacy Research Institute, Portland, Oregon
 Melissa A St Hilaire PhD, Instructor, Harvard Medical School, Boston, Massachusetts
 Andrew Steele PhD, Associate Professor of Biological Sciences, California State Polytechnic University
 Jennifer Thomas PhD, Professor, San Diego, California
 Gianluca Tosini PhD, Chief Scientific Research Officer, Morehouse School of Medicine, Atlanta, Georgia
 Roger Tseng PhD, Biological Scientist, USDA, Ames, Iowa
 Judy Village PhD CCCPE, President, Association of Canadian Ergonomists, British Columbia
 Daniel S Whittaker PhD, Los Angeles, California
 Anna Wirz-Justice PhD, Professor Emeritus, Centre for Chronobiology, University of Basel, Switzerland
 Irving Zucker PhD, University of California, Berkeley
 Mariah Baughn MD, San Diego, California
 Steven M Croft MD FAAN, Neurologist, Houston, Texas
 Richard E Cytowic MD, Washington, DC
 Mona Ezzat MD, San Diego, California
 John F Gottlieb MD, Clinical Assistant Professor of Psychiatry & Behavioral Sciences, Chicago, Illinois
 Royan Kamyar MD, Physician, La Mesa, California
 Jack Kruse DMD MD, Neurosurgeon, New Orleans, Louisiana
 Beth Malow MD MS, Medical Doctor & Researcher, Brentwood, Tennessee
 Melody T McCloud MD, Obstetrician-Gynecologist, Atlanta, Georgia
 Tessa Sugarbaker MD MFT, San Francisco, California
 Nathaniel F Watson MD MSc, Bainbridge Island, Washington
 Dr Archana G Chavan, University of California, Merced
 Dr Chelsea Gustafson, Assistant Professor, Portland, Oregon
 Dr Paul Kelley, Milton Keynes, United Kingdom

SB 534.Daylight Savings Time.pdf

Uploaded by: John Woolums

Position: UNF

BILL: Senate Bill 534
TITLE: General Provisions – Full-Year Daylight Savings Time
POSITION: OPPOSE
DATE: March 10, 2022
COMMITTEE: Education, Health, and Environmental Affairs
CONTACT: John R. Woolums, Esq.

The Maryland Association of Boards of Education (MABE) opposes Senate Bill 534, which is intended to require the standard time in Maryland to be Eastern Daylight Time year-round and establish year-round Daylight Savings Time (DST) in the State.

MABE shares the concerns of our local boards of education that one the most foreseeable outcomes of adopting year-round Daylight Savings Time would be negative impacts on school system efforts to establish later school start times. Local boards of education have been responding to parent and student input in recent years to consider major revisions to the organization of the school day, focusing primarily on adopting later start-times for high schools.

System-wide reforms to adopt later school start-times involve significant study and alignment of policies and budgets provide necessary modifications to student transportation scheduling, numbers of school buses and drivers, and impacts on after school activities. Much of this work has been undertaken in recent years, without consideration for the potential adoption of year-round Daylight Savings Time. In this way, legislation demanding such a change would further complicate an already complex set of considerations in adapting school day schedules and start times to best meet the needs of students.

MABE and all local boards of education recognize that developing a healthy school environment which promotes student health, well-being, and the ability to learn must be our highest priority. In this context, several local boards have adopted or are considering adopting later school start times based on assessments of the impact on student health, safety, and student developmental needs. Under Senate Bill 534, and a permanent shift to Eastern Daylight Time, the sun would not rise until approximately 8:30 a.m. during the shortest days of winter. As a result, students would be walking to school or bus stops in the dark for many more winter mornings during the school year.

MABE recognizes and appreciates that Senate Bill 534, unlike other similar legislation, would make Maryland's transition to year-round Daylight Savings Time contingent on federal law being amended to allow a state to observe a year-round standard time that is consistent with Eastern Daylight Time. However, MABE believes the potential negative consequences of that eventual outcome warrants the legislature's rejection of the proposal to enact legislation that could be triggered by this federal action.

For the reasons outlined above, MABE requests an unfavorable report on Senate Bill 534.

SB534_DST_SSLMD_Oppose.pdf

Uploaded by: Lisa VanBuskirk

Position: UNF



Testimony in Opposition to SB 534 - General Provisions - Standard Time - Year-Round Daylight Saving Time

March 9, 2022

Good Afternoon Chair Pinsky, Vice Chair Kagan, and Members of the Education, Health and Environmental Affairs Committee:

Thank you for the opportunity to **testify in opposition to SB 534, unless it is amended as described below**, for the third year in a row. I am Lisa VanBuskirk, the leader of Start School Later's Maryland and Anne Arundel County chapters. The goal of my all-volunteer organization is to educate communities and policy makers about the physical and mental health, safety, and academic benefits of age-appropriate school hours. My organization opposes permanent Daylight Saving Time (pDST) because of the safety concerns regarding morning winter darkness and the negative impact on the circadian rhythm and health of every Marylander.

What is the difference between permanent Daylight Saving Time vs the status quo or permanent Standard Time? It is the difference between sunrise on the opening day of the Maryland General Assembly being at 8:24 a.m. versus 7:24 a.m. If you came to Annapolis at 7:30 on the Opening Day under permanent DST, the State House would look like the photo on the left. If you came to Annapolis at 7:30 this year, the State House looked like the photo on the right. For the March 10th bill hearing, sunrise would be the difference of 6:24 vs 7:24. Think about that on Monday March 14, when over the weekend, sunrise shifted to 7:20 as we return to Daylight Saving Time. Will you feel jet lagged and groggy in the morning?



Photos taken by Lisa VanBusirk, March 1, 2022.

Our circadian rhythm is regulated by sunrise, not sunset. A permanent delay of sunrise time would put all of us on a perpetual “social jet lag”, which would be most noticeable in the winter (like next Monday morning). This would affect our physical and emotional health and well-being, but would be particularly exacerbated for adolescents, who already experience a well-documented delay in sleep and wake times. **Permanent Daylight Saving Time, combined with the current too-early school start times, would have an even greater negative impact on adolescent circadian rhythm, safety, health, and academics, and is contrary to the intent of previous state legislation regarding school bell times** (2014’s HB 883 and 2016’s HB39).

This bill is contingent upon neighboring states passing similar permanent Daylight Saving Time legislation, as well as changing federal law. Legislation is mixed in Pennsylvania where there are bills supporting permanent Standard Time and supporting permanent Daylight Saving Time. Delaware passed permanent Daylight Saving Time legislation in 2019. In West Virginia and Virginia there is legislation supporting permanent Standard Time.¹

I acknowledge the negative health and social impacts society bears when we switch from Standard Time (ST) to Daylight Saving Time (DST). The very day of the hearing for the 2020 Senate’s version of the bill, the newspapers published stories about the negative effects of switching back and forth and the call by circadian scientists to move to permanent Standard Time and do away with Daylight Savings Time altogether, the complete opposite of this proposed legislation.² In 2020, the Baltimore Sun Editorial Board opposed this bill.³

The latest sunrises of the year in Maryland occur in December through January, which would be at about 8:25-8:39 a.m. depending on where you are in the state, under permanent DST. Civil dawn, the 30 minutes or so before sunrise, when it is light enough to see without artificial illumination, would therefore begin at about 8 a.m.

In 1974, the entire nation tried permanent DST, but it was a disaster with the extra morning darkness. The deaths of eight children in Florida and one in Connecticut were blamed on unsafe DST morning darkness within the first month. Congress reversed its decision later that same year. Enclosure 1 and 2 are articles from the Baltimore Sun covering the 1974 DST fiasco. In 1974, Anne Arundel County Public Schools and Baltimore County Public Schools delayed their school start times by 30 minutes due to safety concerns and several “near-miss” accidents (Enclosure 3, 4, and 5).

Forty-eight years later, Maryland’s schools start even earlier and many Maryland students of all ages already have bus pick-ups well before Civil Dawn. The average middle school start time is now 8:11 and the average high school start time is 7:54 a.m. Both levels have schools that start between 7:00 a.m. and 9:30 a.m. Most elementary schools start later in the morning, but there are elementary schools that start as early

¹ <https://savestandardtime.com/bills>

² https://www.wsj.com/articles/heres-why-health-experts-want-to-stop-daylight-saving-time-11583340645?fbclid=IwAR0YLjCfiS_D7RMQi55jqaXYUuKUORnk-o5GmmiQCgdOKbzAkLJyijB1Wmc

³ <https://www.baltimoresun.com/opinion/editorial/bs-ed-0309-daylight-savings-blues-20200306-o3dst4scwzchhgu7ywtuzpdk4-story.html>

as 7:30 a.m. and as late as 9:45 a.m.⁴ I took the liberty of comparing winter sunrise to school start times across Maryland. You can see the chart in Enclosure 6, **nearly all middle and high schools, plus a fair number of elementary schools would start before sunrise under permanent DST.**

It is not just the school bell time we ought to consider, but the fact that **so many more Maryland students will be picked up by a bus or walk to school in the dark during the winter. This is a safety issue.**

When Massachusetts studied the permanent DST issue in 2017, their report made two caveats to the implementation of what they called Atlantic Time; community education and later school start times. As the Massachusetts report acknowledges “One way to avoid the downsides of year-round DST for school-aged children would be to delay school start-times until after there is sufficient daylight for safe travel.”⁵ Many Maryland students ride buses for an hour, coupled with having to be at the bus stop 10 minutes early and arriving 15-30 minutes before the bell. We must take into account the impact of permanent DST on their safety during their dark commute before their pre-sunrise school start time.

Next school year (2022-2023), Arundel County Public Schools will move to new bell times that meet the 2016 Orange Ribbon for Health School Hours law passed by this committee and the entire legislation. The following school year (2023-2024), Howard County Public Schools intends to follow in their footsteps. Permanent Daylight Saving Time would negate these local efforts that are two decades in the making. If we cannot mandate age-appropriate school hours because of the false flag of “local control”, **could you consider permanent Standard Time, which would actually be better for every Marylander’s circadian rhythm, but especially for our adolescent students?**

Just as the list of groups that support age-appropriate start times continues to grow, so does the list of groups opposed to permanent DST. They include the American Academy of Sleep Medicine, National Safety Council, and the National PTA which “... is opposed to daylight saving time during the winter months because of the safety factor.”^{6 7}

Please **vote for an Unfavorable Report on SB 543, amend the bill to Permanent Standard Time, or amend the bill to include a mandate for a minimum safe, healthy, and age-appropriate start time for all schools.**

Thank you,



Lisa VanBuskirk, P.E., Chapter Leader, Start School Later Maryland | Start School Later Anne Arundel County
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Enclosure (1) – *The Baltimore Sun*, January 29, 1974

⁴ <https://www.startschoollater.net/md---statewide.html> see multiple graphics with list of all middle and high school start times and bell times relative to Orange Ribbon criteria.

⁵ https://www.ctnewsjunkie.com/upload/2017/11/Special_Commission_Commonwealths_Time_Zone.pdf

⁶ https://www.washingtonpost.com/lifestyle/wellness/sleep-daylight-saving-time-end/2020/08/28/213d3a0c-e8b8-11ea-bc79-834454439a44_story.html

⁷ <https://www.washingtonpost.com/science/2019/03/08/springing-forward-daylight-saving-time-is-obsolete-confusing-unhealthy-critics-say/>

Enclosure (2) – *The Baltimore Sun*, October 29, 1981

Enclosure (3) – *The Baltimore Sun*, January 5, 1974

Enclosure (4) – *The Baltimore Sun*, January 8, 1974

Enclosure (5) – *The Baltimore Sun*, January 8, 1974

Enclosure (6) – Permanent Daylight Saving Time vs Maryland Public School Start Times

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The Baltimore Sun, January 29, 1974

A mere three weeks after permanent Daylight Saving Time began, "...the small savings in energy that we will make do not justify the loss of lives of our children, nor the hardship placed upon our children and their parents...the lives of our children should receive first consideration."

Bids to kill daylight time heard

By ALBERT SEHLSTEDT, JR.
Washington Bureau of The Sun

Washington—There were serious moves in Congress yesterday to repeal year-around daylight saving time, which went into effect only three weeks ago as an energy-saving measure.

Congressmen in both houses expressed concern over schoolchildren who have been endangered on roads and highways during the dark morning hours of winter.

In Florida, a special session of the state legislature was scheduled for today so that clocks could be turned back an hour. Eight schoolchildren have been killed in pre-dawn accidents there.

"The inescapable conclusion to be reached is that darkness had a great deal to do with the pre-dawn deaths," said Gov. Reubin Askew, who called the
See DAYLIGHT, A4, Col. 1

Children's deaths spur bid to repeal daylight saving

DAYLIGHT, from A1
one-day session solely to deal with the daylight saving time issue.

In the United States Senate, Marlow W. Cook (R., Ky.) rose in support of repealing the year-round daylight saving plan, cleared by Congress December 14, and cited the Florida deaths, plus a reported increase in sexual assaults on youngsters in Minnesota and problems in other states.

Senator Dick Clark (D., Iowa), sponsor of one of the bills to repeal the daylight measure, said it was the No. 1 issue he confronted when traveling in his home state during the Christmas recess.

"I think it's time we recognize we may well have made a mistake," Senator Clark told his colleagues.

8 bills in House

Senator Robert Dole (R., Kan.), also sponsoring a repealer, said the daylight bill passed in December had little in-depth study.

The majority leader, Senator Mike Mansfield (D., Mont.), said he was appalled by the Florida deaths and urged the Senate Commerce Committee to give repeal legislation its immediate consideration.

On the House side of the Capitol, there are eight bills before the Commerce Committee calling for the repeal of winter daylight saving time. All have been introduced since congressmen returned from their home districts to Washington January 21.

Representative Claude Pepper (D., Fla.), who, along with most of the Florida delegation, is supporting repeal, said last week that "the small savings in energy that we will make do not justify the loss of lives of our children nor the hardship placed upon our children and their parents."

"I regret for others their loss of benefit from energy that would be saved in the country and from extra time at the end of the day, but the lives of our children should receive first consideration."

Forecasts of energy savings with daylight time appear to have been exaggerated, according to Senator Clark. He said in a floor speech on the subject yesterday that the Federal Power Commission has estimated that only two-tenths of 1 per cent of this month's fuel savings could be attributed to daylight time. Savings of from 1 to 3 per cent had been hoped for.

If Congress does, indeed, conclude that it made a mistake in enacting daylight time for the winter months, much of the problem that the new law created is already behind the nation.

The sun is rising earlier each day and light could be over most of the country in the morning before the repealers are approved by the appropriate congressional committees and transportation agencies are given adequate advance warning to change their schedules, and the legislation is finally enacted into law.

The Baltimore Sun, October 29, 1981.

Two months were added to Daylight Saving Time. Regarding the 1974 permanent DST, "Mr. Ottinger acknowledged there was an increase in child fatalities during the winter months through February..."

More daylight time voted

Washington (AP)—The House voted yesterday to extend daylight saving time from six to eight months a year over objections that the time change would jeopardize the safety of tens of thousands of school children.

The 243-165 vote came as supporters said the change, adding March and April to the daylight saving time months, would save energy because there would be more daylight during the time people are awake and need it.

Critics, especially rural congressmen, challenged that, saying more, not less, energy would be used. That plus the fear that school children would be forced to go to school in the dark could force many rural states to drop daylight saving time altogether, they argued.

The action by the House, which still must be approved by the Senate, reverses a decision the House made in 1976 when it rejected a similar proposal.

Under the plan, daylight saving time would be initiated on the first weekend in March rather than the last weekend in

April. At that time clocks would be moved ahead one hour, yielding more daylight in the evening and less in the morning. Clocks would be turned back an hour on the last weekend of October, the same time they are adjusted under the current law.

Representative Richard L. Ottinger (D, N.Y.), who sponsored the bill, said government studies of the 1974-1975 period, when the United States had year-round daylight saving time, showed energy savings of 100,000 barrels of oil a day in March and April and no increase in child fatalities.

Mr. Ottinger acknowledged that there was an increase in child fatalities during the winter months through February, but not in March or April.

The House plan would retain provisions for any state entirely within one time zone to opt out of the entire daylight saving system, as Arizona has. But the House rejected a proposal that would have let any state avoid going onto daylight saving time for only the two additional spring months.

The Baltimore Sun, January 5, 1974

Anne Arundel County Public Schools delays all opening and closing times of schools 30 minutes to recoup savings in electricity, as a result of the shift to permanent Daylight Saving Time.

"The AAA said millions of pedestrians will be on the streets in partial or total darkness during morning hours, including children on their way to school."

Daylight saving prompts Arundel school shift

Only one county in the Baltimore metropolitan area has announced it will alter schedules significantly as the nation turns its clocks ahead an hour tomorrow in converting to Daylight Saving Time.

Anne Arundel officials said yesterday that all opening and closing times of schools, school offices and school-related activities would be rescheduled one-half hour later than normal, beginning Monday.

Schools in Baltimore city and county, and in Howard and Harford counties said there were no changes planned in any scheduled-times.

Daylight time will remain in effect throughout most of the nation through October, 1975.

The White House has said

the switch could cut back the demand for heating and electricity by as much as 3 per cent—particularly in the northern regions of the country—because people will not need to turn on their lights as early at night.

The change over at 2 A.M. tomorrow will mark the first time the nation has gone on year-round Daylight Saving time since World War II.

The switch to daylight time could create some problems for drivers, the American Automobile Association said. The AAA said millions of pedestrians will be on the streets in partial or total darkness during the morning hours, including children on their way to school.

Enclosure (4)

The Baltimore Sun January 8, 1974

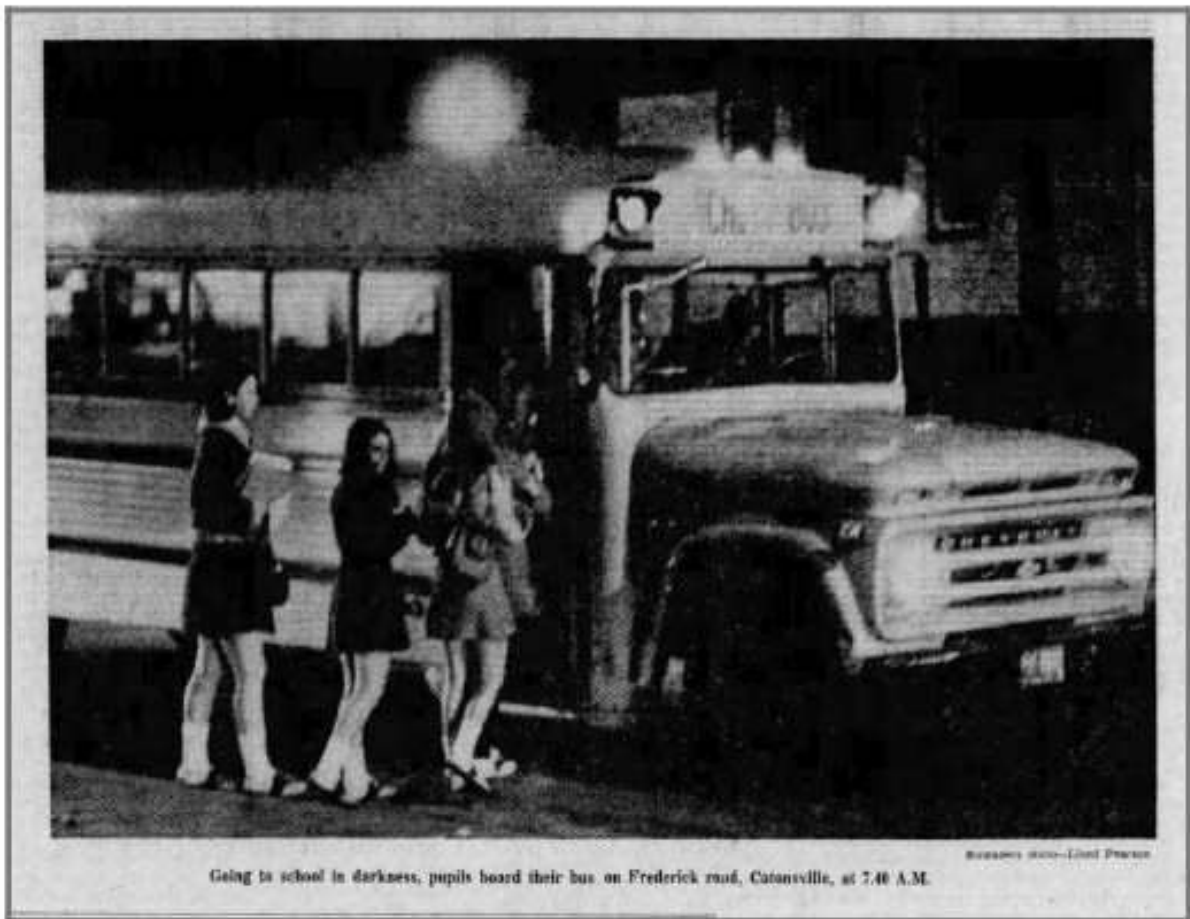
Cover Photo

“Going to school in darkness, pupils board their bus on Frederick Road, Catonsville. 7:40 A.M.”

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The Baltimore Sun (Baltimore, Maryland) · 8 Jan 1974, Tue · Page 1

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The Baltimore Sun January 8, 1974

"No injuries were reported in the Baltimore area, although county police advised school authorities that there had been some "close shaves" at school crossings."

"...most calls came from parents of high school and junior high school girls...Dundalk Senior High and Delaney Senior High, for example begin classes at 8 A.M. and 8:05 A.M. about a half hour before sunrise at 8:30 A.M."

*These two high schools now start at 7:45 a.m.

The Baltimore Sun (Baltimore, Maryland) • 8 Jan 1974, Tue • Page 1

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County schools to start later as protests swell

BY MIKE BOWLER

Flooded with calls from anxious parents and harried school crossing guards, Baltimore county school officials yesterday delayed morning bus and class schedules one-half hour.

The new schedule, effective tomorrow morning through Friday, February 15, was announced yesterday afternoon after officials said they received hundreds of calls from concerned and angry parents who saw their children set out for school in darkness on the first day of year-round Daylight Saving Time.

A spokesman for the Baltimore Archdiocese said yesterday there were no plans to alter the schedules of parochial schools in the area.

Anne Arundel county yesterday began a one-half hour

later starting time. City school officials, who checked with other urban districts on the East Coast, said they would stick with regular schedules. Almost all city schoolbus riders use Mass Transit Administration buses.

After receiving a call from a Baltimore county motorist who said he had narrowly missed hitting a group of students waiting for a bus before dawn yesterday, James A. Sensenbaugh, the state school superintendent, urged Maryland drivers to "drive with extreme caution during the morning pre-school hours."

In Maryland and across the nation, school switchboards were buzzing as the energy-saving measure went into effect. See DAYLIGHT, A5, Col. 1

County schools to start later in wake of protests

DAYLIGHT, from A1
fect about two weeks after the shortest day of the winter.

No injuries were reported in the Baltimore area, although county police advised school authorities that there had been some "close shaves" at school crossings. A teen-aged girl in Seymour, Conn., was struck and killed by a car as she walked to school shortly after 7 A.M.

Crossing guards in Salt Lake City, where sunrise was at 8:52 A.M., were issued flashlights.

A Baltimore county school spokesman said most calls came from the parents of high school and junior high school girls. Bus routes in the county are designed so that high school students are picked up first, then elementary students, most of whom begin school at 9 A.M.

Dundalk Senior High and Delaney Senior High, for example, began classes at 8 A.M. and 8:05 A.M., about a half-hour before sunrise at about 8:30 A.M.

Afternoon schedules in the county are not affected, meaning that students will get a half-hour "vacation" each day until February 15. This comes on top of five energy-saving and snow days that had been included in the schedule and will not be made up, said Robert Y. Dubel, deputy superintendent.

Mr. Dubel said the afternoon schedule was not changed because many bus drivers have other jobs that could be disrupted by an extension of school hours.

"We made the change for

two reasons," he said. "The police department formally requested it. They said some crossing guards had had a tough time and some close shaves. We also got an unbelievable reaction in terms of concerned parents. The phone's been ringing all day."

Schoolchildren, of course, were not the only ones affected by the time change. Adults had to leave for work in the dark, and the traffic jam on the Jones Falls expressway occurred on schedule—in the dawn's early light.

A few parents who remembered long, early morning walks to class in their own school days, scoffed at the delayed openings. "I caught the bus in the dark when I was growing up, and I didn't mind," said Robin Poling of Clarksburg, W.Va., where school hours were moved ahead a full hour.

Other parents noted that their teen-agers had never had trouble in the darkness at the other end of the day. "I know I could never keep mine home at night," said Mr. Dubel.

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Permanent Daylight Saving Time vs Public School Hours in **Maryland***

Under permanent Daylight Saving Time, the latest winter sunrise in Maryland, would be between 8:25 - 8:35 a.m., depending on location.

Civil Dawn is the approximately 30 minutes before sunrise, when it is possible to see without artificial illumination

How much earlier before sunrise or civil dawn, are students waiting for buses or walking to school?

RED = School starts before winter sunrise. **GREEN** = Start times after winter sunrise.

County/School District	HS start time or start ranges	MS start time or start ranges	ES start time or start ranges
Allegany County	7:40	7:40	8:00 to 8:45
Anne Arundel County	7:30	8:10 to 9:10	8:10 to 9:45
Baltimore City	7:45 to 9:00	7:45 to 9:00	7:45 to 9:00
Baltimore County	7:10 to 7:45	7:40 to 8:30	8:35 to 9:20
Calvert County	7:25 to 7:40	7:22 to 8:25	8:30
Caroline County	7:50	7:40	9:00
Carroll County	7:30	8:25 to 8:35	7:45 to 9:30
Cecil County	7:40	7:50-8:10	9:00
Charles County	7:25 to 8:05	7:45 to 8:50	8:30 to 9:30
Dorchester County	7:50 to 8:15	7:55 to 8:05	8:30 to 9:00
Frederick County	7:30	8:00	8:20 to 9:00
Garrett County	8:25	8:30	8:15 to 8:40
Harford County	7:30	8:15	9 to 9:30
Howard County	7:25	7:40 to 8:25	8:35 to 9:25
Kent County	7:45	8:40	8:00 to 9:00
Montgomery County	7:45	7:55 to 8:15	9:00 to 9:25
Prince George's County	7:45 to 9:30	7:45 to 9:30	7:45 to 9:15
Queen Anne's County	7:35	7:45	7:30 to 8:55
Somerset County	7:30	7:20	8:00
St Mary's County	8:00	7:05 to 7:55	8:25 to 9:00
Talbot County	7:45 to 7:50	7:45 to 7:50	8:40
Washington County	8:45	7:20 to 8:45	7:30 to 9:15
Wicomico County	7:45	7:45 to 9:15	8:15 to 9:15
Worcester County	7:48 to 8:07	7:30 to 8:00	7:45 to 8:30

* based on 2017-2018 school start time data collected by SSL Maryland

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SB-534 Circadian Sleep Disorders Network Unfavorab

Uploaded by: Peter Mansbach

Position: UNF

Teens' circadian rhythms are delayed relative to daylight, not relative to clock time [1].

Making Daylight Saving Time permanent is equivalent to starting school yet another hour earlier in winter [2]. We already know that teens' internal circadian clocks run much later than adults, on average, and that early school start times lead to bad outcomes - less learning, more traffic accidents, poor choices (alcohol, etc), and depression.

Conversely, making Standard Time permanent (year-round) would be equivalent to moving bell times an hour later from March to November - and without the problems resulting from changing bus schedules, affecting after-school jobs, or limiting athletic practice.

References:

[1] See, for example, "Sunset time and the economic effects of social jetlag: evidence from US time zone borders", Osea Giuntella and Fabrizio Mazzonna. (*J Health Econ* 2019 May, **65**,210-226)

<https://pubmed.ncbi.nlm.nih.gov/31030116/>

[2] "Daylight Saving Time and Artificial Time Zones – A Battle Between Biological and Social Times", Till Roenneberg, Eva C. Winnebeck, and Elizabeth B. Klerman (*Front Physiol.* 2019; **10**: 944)

<https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC6692659/>