



SAVE STANDARD TIME

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

2022 February 6

Virginia General Assembly
900 East Main Street
Richmond Virginia 23219

Re: Support HB-303 (Permanent Standard Time) for Health, Safety, Education

Dear Honorable Delegates,

Please support HB-303, a bill to restore permanent Eastern Standard Time (EST) in Virginia. Permanent EST is longitudinally correct and federally pre-approved, it preserves morning sunlight for school and work start times, it improves sleep health and viral immunity, and it is supported by current and historical polling.

Scores of organizations representing thousands of scientists and doctors, and millions of teachers and parents, oppose Daylight Saving Time (DST) and endorse longitudinally correct, permanent Standard Time. Among these are the Maryland Sleep Society, Kentucky Sleep Society, Tennessee Sleep Society, Southern Sleep Society, National PTA, National Safety Council, American Academy of Sleep Medicine, American College of Chest Physicians, National Sleep Foundation, American College of Occupational & Environmental Medicine, Start School Later, Society for Research on Biological Rhythms, Canadian Sleep Society, and Association of Canadian Ergonomists.^{[AASM][CSS][NSF][SRBR]}

Permanent EST is the quickest way to end Virginia's clock changes, as the Uniform Time Act (15 USC §260a) permits any state's exemption from DST and restoration of its permanent Standard Time. Current scientific polling shows strong public support to end clock change, with preference for permanent Standard Time.^[AP] Neighboring states have similar legislation, and others will follow as this bill progresses.

Some states have bills for permanent DST, but that policy is federally prohibited. It would also delay your sunrises to 8:46am, and past 8am up to 4.0 months. Its unnaturally dark mornings would reverse the benefits of starting school later, disrupt parents' work schedules, and hinder farm work.^{[Borisenkov][Cell][Schlanger][Skeldon]} History shows support for permanent DST reverses into opposition once its forced early waking in dark, cold winter mornings is experienced. Permanent DST has failed several times worldwide; it was a deadly disaster in the US in 1974.^{[BBC][Ripley][Yorkshire]}

Sleep is essential to viral immunity,^{[Meira][Panda][Ray]} and for years the CDC has classified sleep deprivation as a nationwide epidemic.^[Jin] Springing clocks ahead to DST acutely deprives sleep. Leaving clocks ahead on DST chronically deprives sleep (estimated average 19 minutes nightly).^{[Giuntella][Roenneberg]} Continually maintained artificial delay of sunrise by one hour

manifests as statistically significant increases in accidents, disease (certain cancers up 12–36%), and healthcare costs, and as statistically 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 preserves morning sunlight and lets people sleep longer.^{[AASM][Juda][SRBR]}

Please hear the consensus of scientists, doctors, teachers, polling, and history. Save time, money, and lives. Support this bill and restore permanent Standard Time.

Sincerely,



Jay Pea

Founder & President

jay@savestandardtime.com

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

Individuals (non-comprehensive list)

Elizabeth B Klerman MD PhD, Associate 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
 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
 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
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 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
 Dr Irving Lebovics, Los Angeles, California
 Lisa Alexia PA-C, Physician Assistant, Alaska
 Prof Stacey Harmer, University of California, Davis
 Betty C Jung MPH RN MCHES, New Haven, Connecticut

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. 538, 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

"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>



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