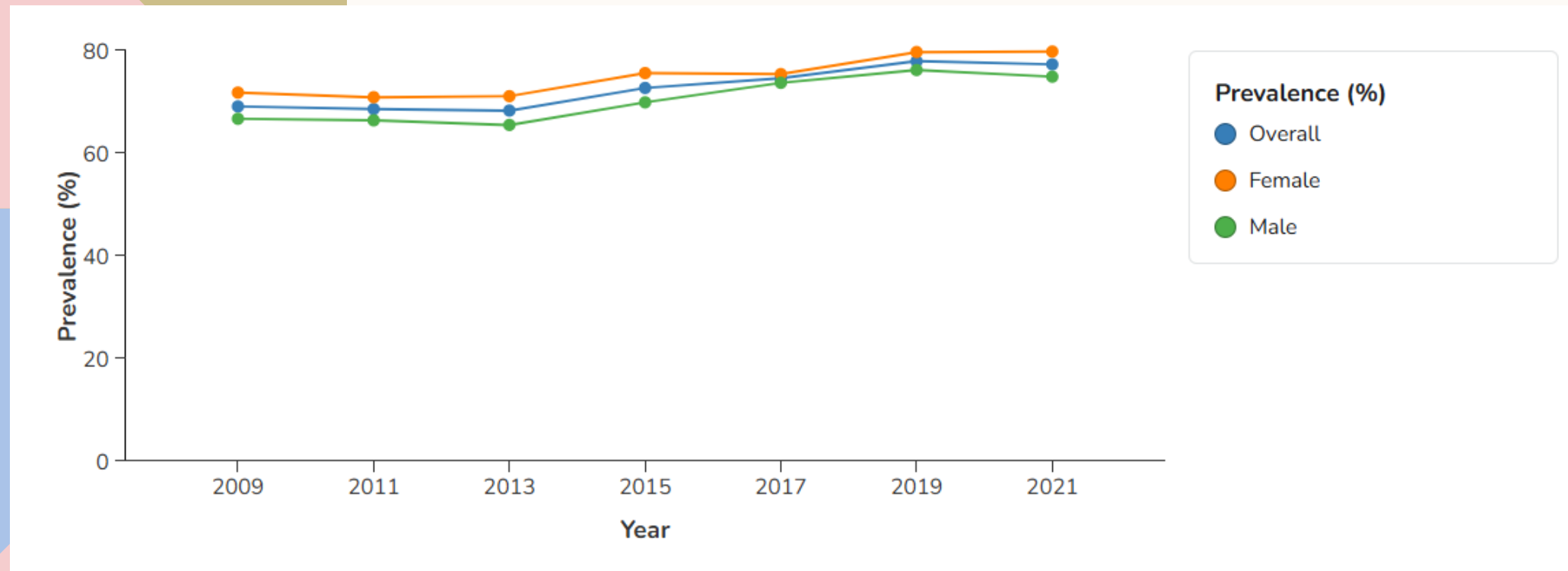


LATER SCHOOL START TIMES FOR SECONDARY SCHOOLS

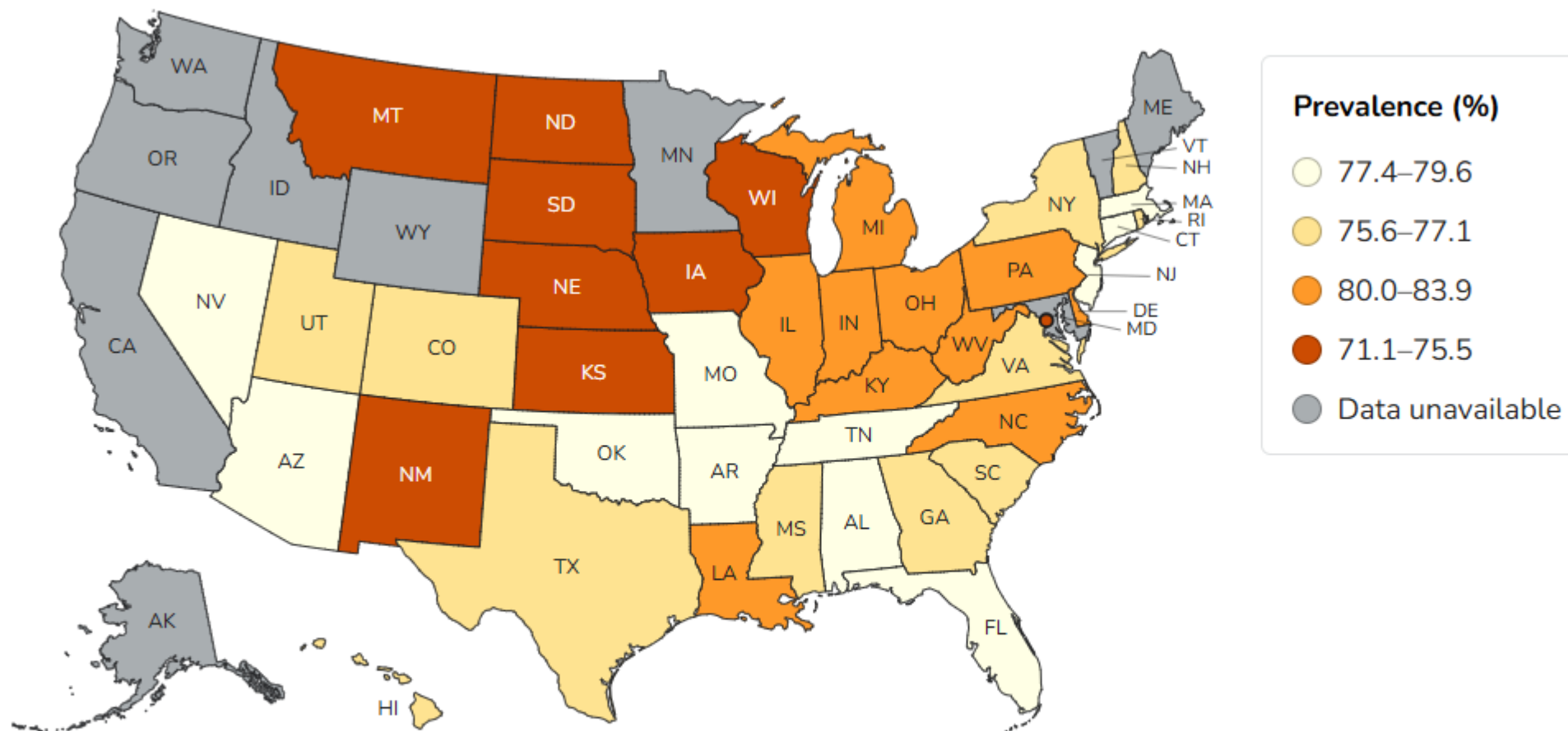
**JOANNA FONG-ISARIYAWONGSE, MD
AMY GOLDMAN**

INSUFFICIENT SLEEP IN ADOLESCENTS: A PUBLIC HEALTH CRISIS



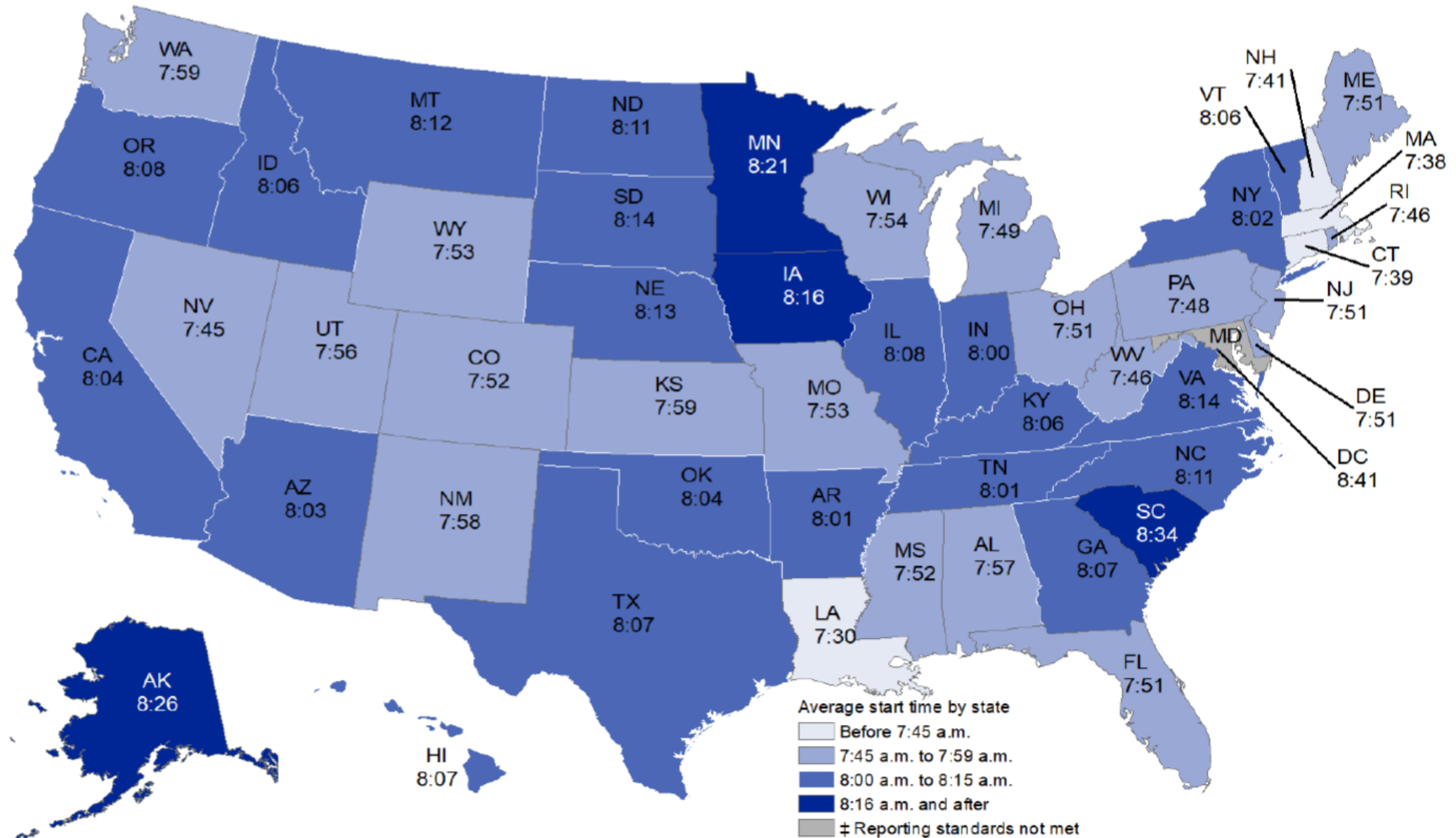
CDC: National trends in short sleep duration among US high school students

Data Source: CDC National Youth Risk Behavior Survey (YRBS), 2009–2021.



U.S. Territories

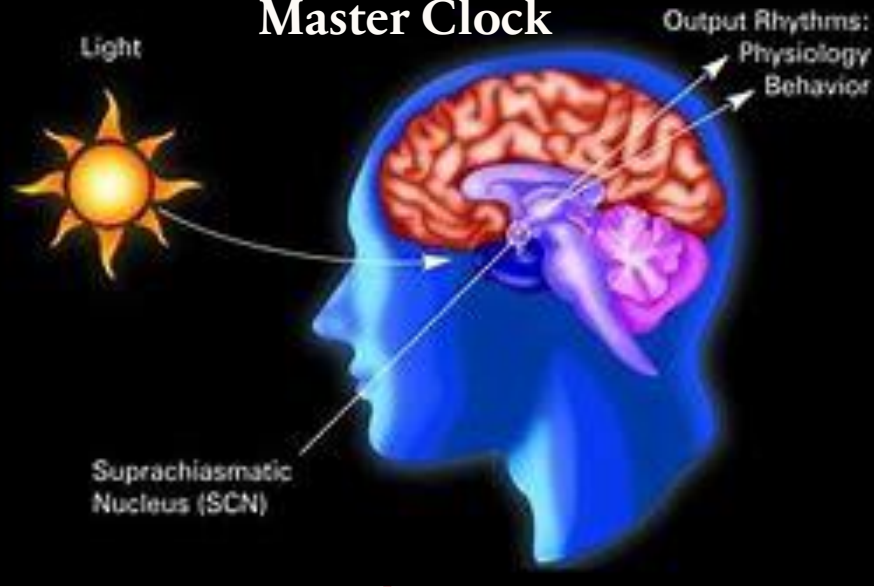
PR





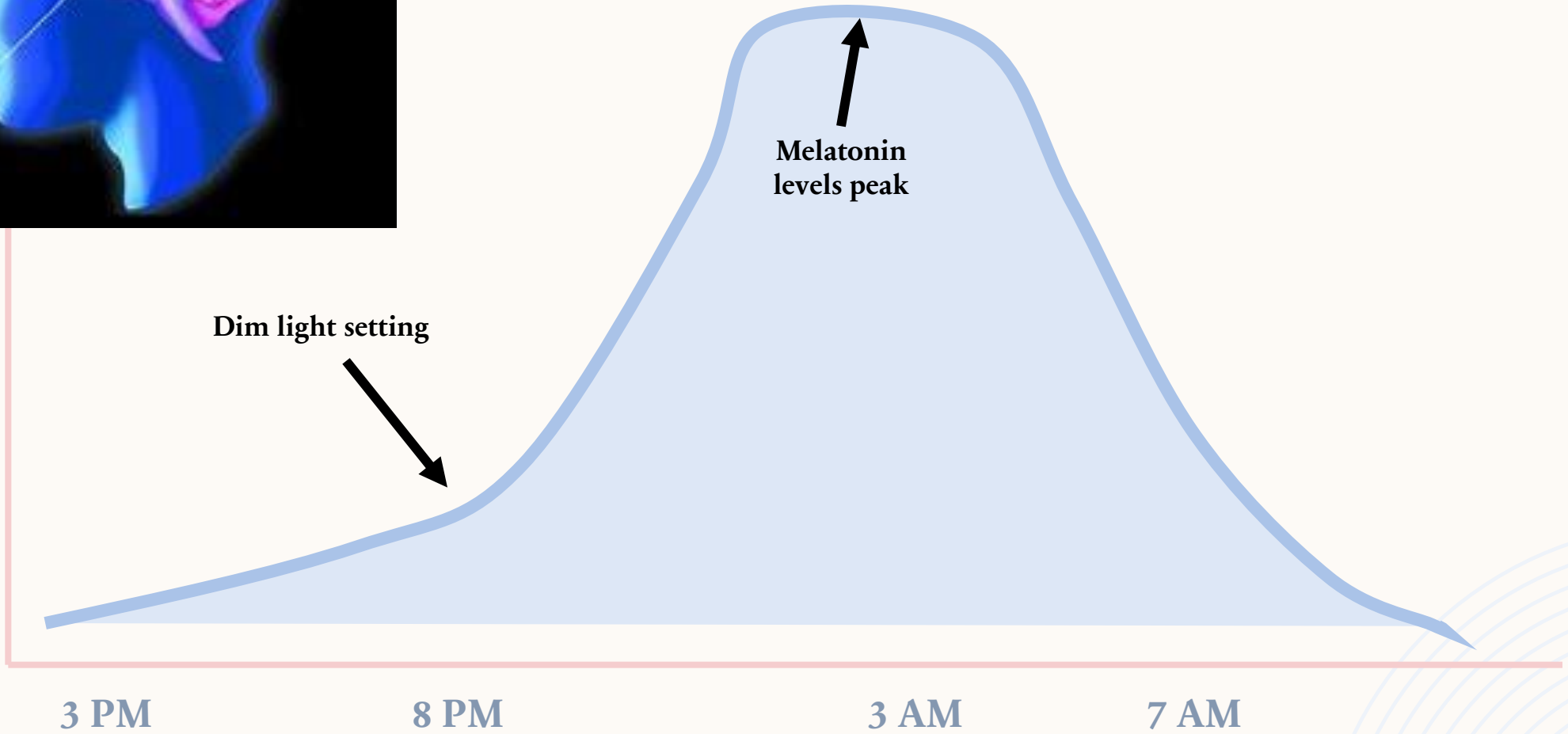
THE SCIENCE OF SLEEP: WHY EARLY SCHOOL START TIMES HURT TEENS

Master Clock



Process C

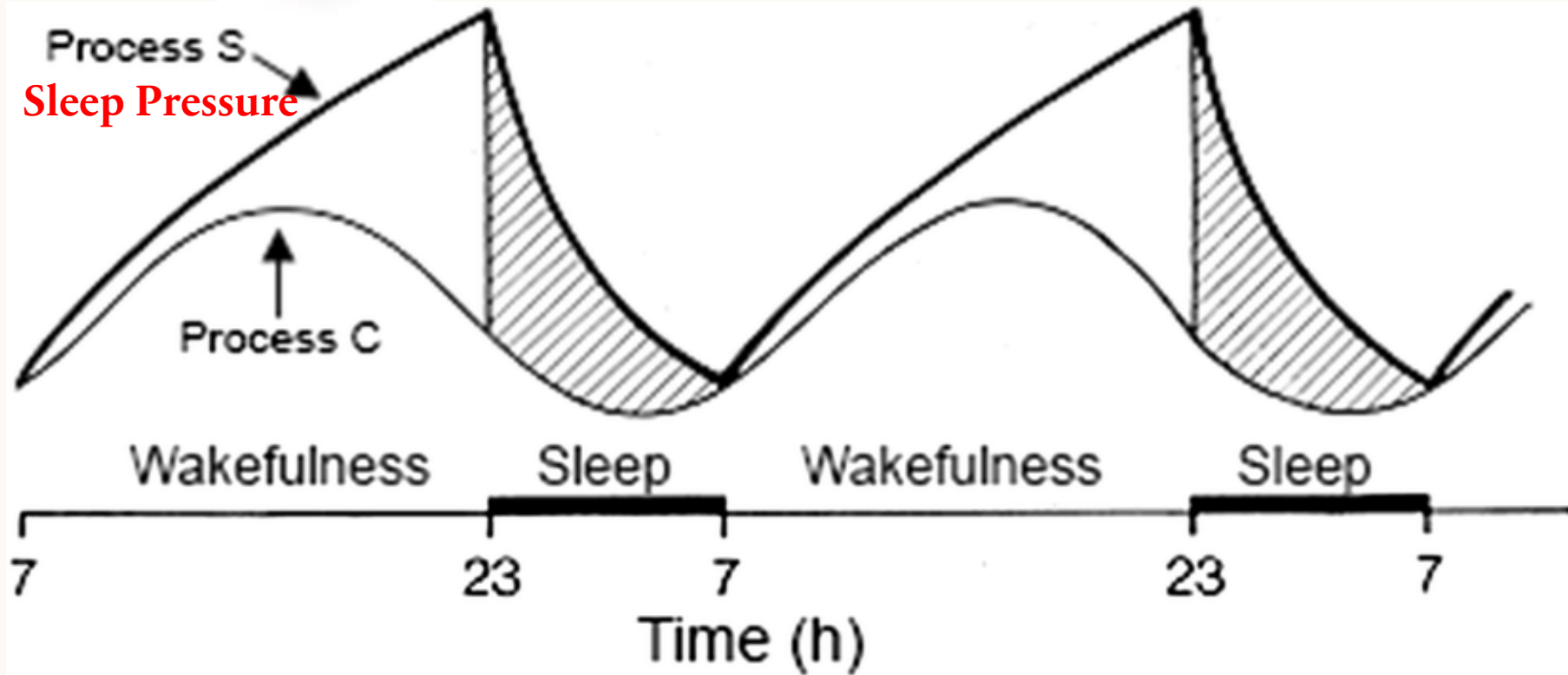
Melatonin level



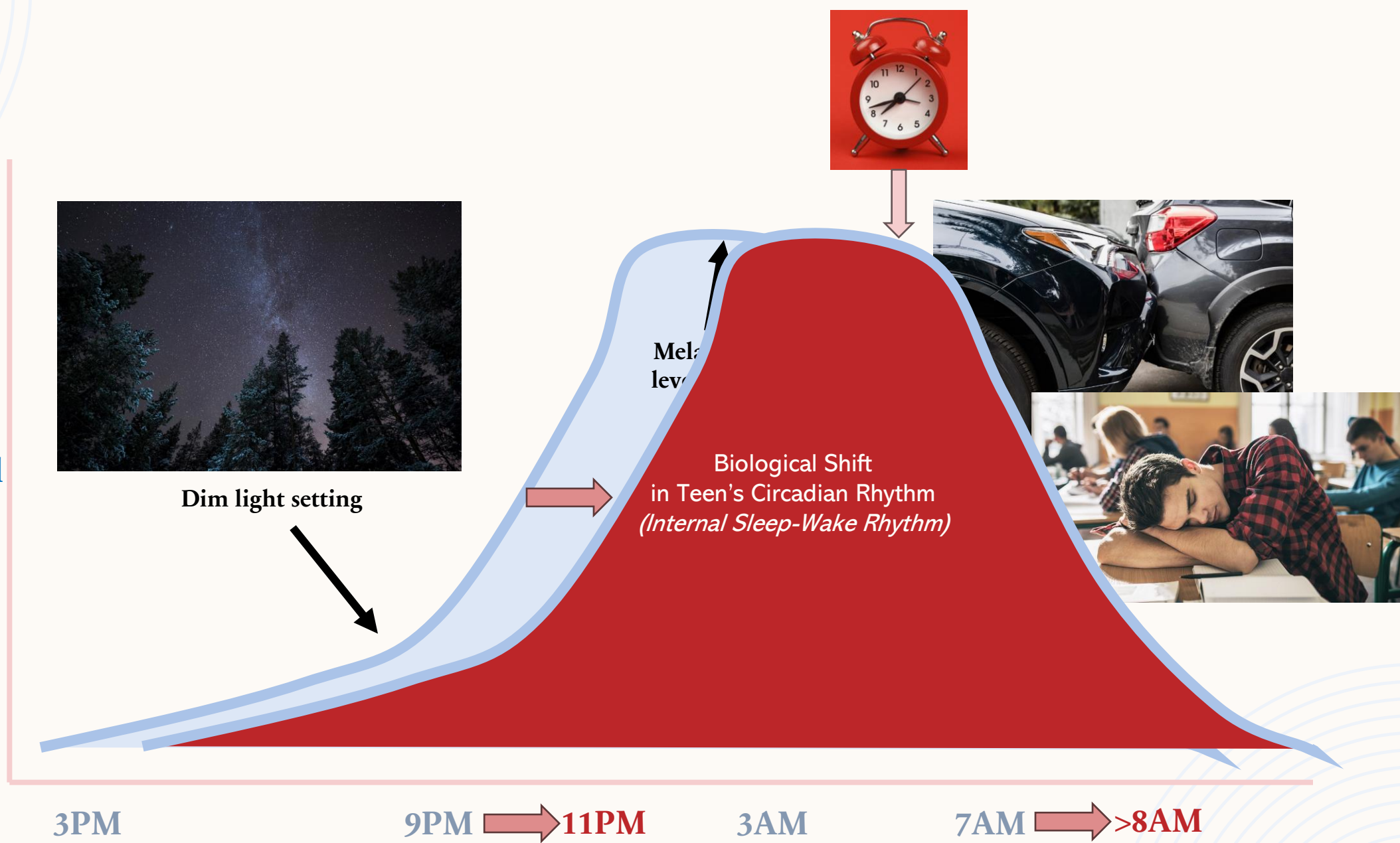
↑ Adenosine



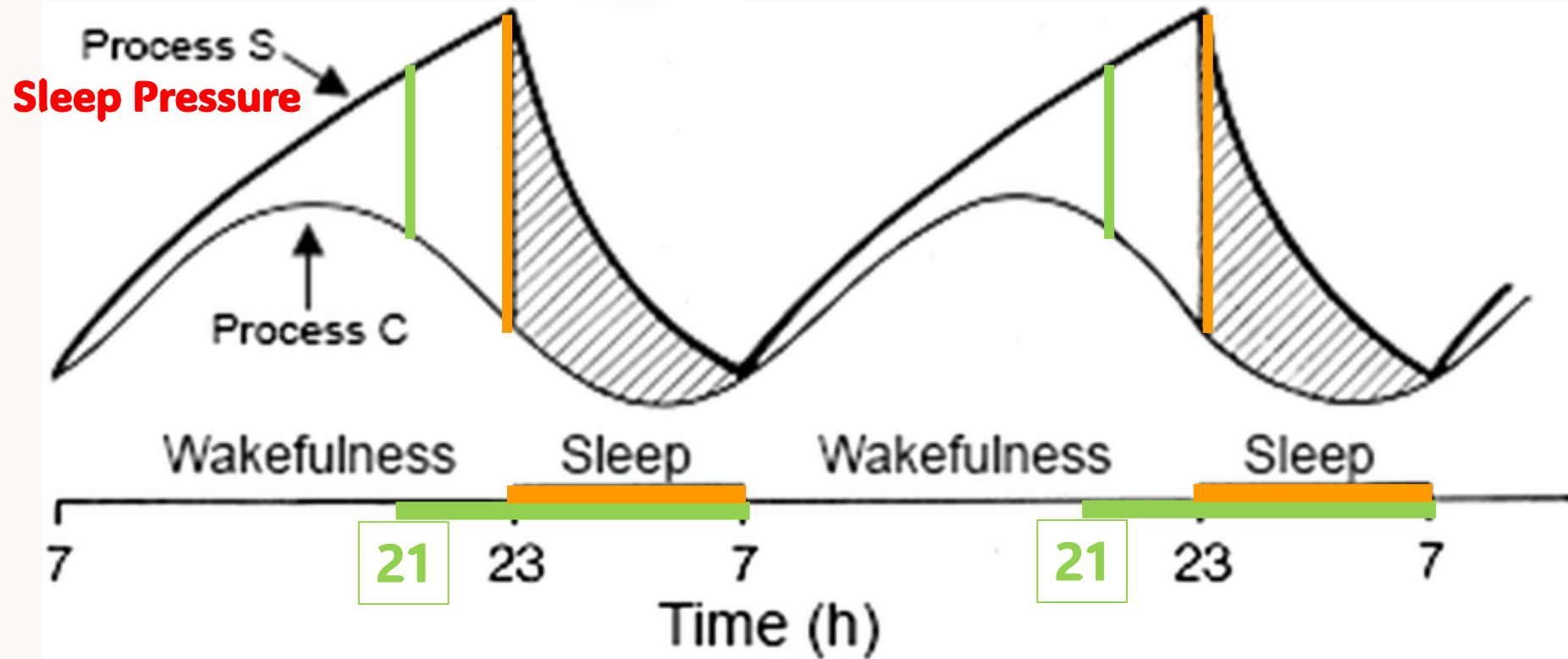
Sleep deprivation



Melatonin level



↑ Adenosine



EDUCATIONAL SUCCESS



**Attendance
Matters**

Every student. Every day.

**Reduced Truancy
Better attendance**



**Improved GPA, SAT
Less achievement gap**

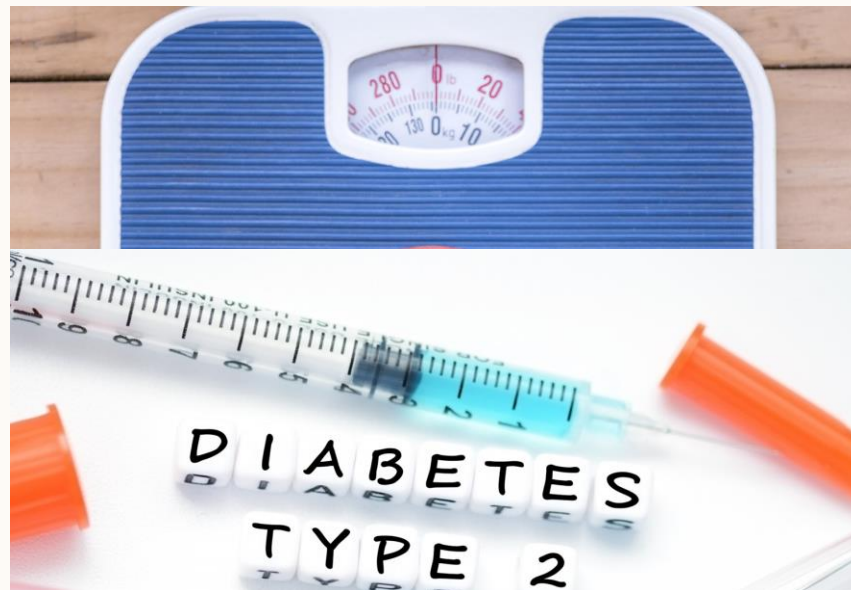


**Higher Graduation
Rates**

PHYSICAL & MENTAL HEALTH



Less Depression, Anxiety, & Suicide



Less Childhood Illness, Obesity & Diabetes



Fewer Car Crashes

RISK-TAKING BEHAVIORS



Less Substance Abuse



Less Youth Crime & Delinquency



Less Risky Sexual Activity

ATHLETIC PERFORMANCE



Better Athletic Performance



Fewer Injuries



Fewer Concussions



With Implementation of Later Secondary School Start Times



**PA economy projected
to grow by
\$1.2 BILLION
in 5 years**

The List of Prominent Organizations Endorsing Later School Start Times Keeps Growing Longer



2021

- U.S. Surgeon General

2019

- American Association of Sleep Technologists

2017

- National Parent Teacher Association (PTA)
- American Academy of Sleep Medicine
- Society of Behavioral Medicine

2016

- American Medical Association

2015

- Centers for Disease Control & Prevention (CDC)

2014

- American Psychological Association
- National Association of School Nurses/Society of Pediatric Nurses
- American Academy of Child & Adolescent Psychiatry
- American Academy of Pediatrics

2011

- National Education Association (Resolution C-5 - Adequate Rest, p. 240)

What Are We Waiting for?

EDUCATION COMMITTEE

Senator Dave Argall, Chair



THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE RESOLUTION

No. 273 Session of
2025

INTRODUCED BY COOPER, BRIGGS, SANCHEZ, ROWE, BRENNAN, RIVERA,
RABB, DIAMOND, D. WILLIAMS, WARREN, O'MARA, FREEMAN, ORTITAY,
MIHALEK AND BOYD, JUNE 25, 2025

REFERRED TO COMMITTEE ON EDUCATION, JUNE 25, 2025

A RESOLUTION

1 Urging school districts to adopt later secondary school start
2 times.

3 WHEREAS, Numerous studies have shown that adolescents,
4 particularly high school students, require an average of 8 to 10
5 hours of sleep per night for optimal physical and mental health,
6 academic performance and overall well-being; and

THANK YOU

Joanna Fong-Isariyawongse, MD
fongjs@upmc.edu



