

The seal of the Township of Radnor PA School District is a circular emblem. It features a central figure of a Native American holding a bow and arrow, surrounded by a laurel wreath. The text "THE TOWNSHIP OF RADNOR PA" is written along the top inner edge, and "SCHOOL DISTRICT" is written along the bottom inner edge. Below the wreath, it says "DELAWARE COUNTY".

RTSD Adolescent Sleep and School Start Time Study Update

Curriculum Committee Meeting

May 8, 2018

Adolescent Sleep/School Start Time Background

Radnor Township School District is committed to promoting and sustaining the safety, academic achievement, mental and physical health of our students. Over the past several years, there has been significant and consistent mounting scientific evidence that chronic adolescent sleep loss has become a critical youth public health issue that schools can play a significant role in addressing.

Many prominent national health organizations have issued official policy statements and recommendations to this effect including the American Medical Association, the American Academy of Pediatrics and the US Centers for Disease Control and Prevention. Therefore, at the beginning of the 2017-18 school year, the Radnor Township School District School Board and Administration:

- Identified chronic adolescent sleep loss as a concerning health issue
- Designated it as a 2017-18 District Priority Project
- Committed to a study and recommendation to follow



Purpose of the Committee

When officially designating adolescent sleep and school start time as an area of study for the 2017-18 school year, Radnor Township School District Superintendent Mr. Kenneth Batchelor requested the establishment of a Study Committee and assigned the following three objectives:

- Understand and educate the community about the identified national public health issue of chronic sleep deprivation in adolescents and the contributing factors and consequences;
- Evaluate the impact of this health issue on Radnor students through a variety of metrics;
- Present a report with recommendations of what Radnor can do to help the RTSD Administration and Superintendent by the end of the 2017-18 school year



The Committee

- The Adolescent Sleep/School Start Time Committee was selected from those who responded to a District administered survey in the fall of 2017 to the Radnor community that contained the following three questions:
 - What do you think would be beneficial about starting high school later in the morning?
 - What are the concerns you have about starting high school later in the morning?
 - What general comments, questions, or concerns do you have that you would like the committee to address?



The Committee

- Approximately 500 community members completed the survey
- Approximately 100 respondents expressed interest to be on the committee
- From the 100, thirty-six were chosen to represent the committee

The goal within the selection process was to include the widest possible variety of skills, roles and perspectives relative to the topic on the Committee.

Who is on the committee:

- Middle and high school students
- Parents/Guardians
- Teachers
- Administrators
- Community representatives



The Committee

RTSD Students

Ryan Fox – RHS Student

Jack Hughes - RHS Student

Skylar Le – RMS Student

Tobey Le - RHS Student

Scott Massey - RHS Student

Ryan Movsowitz - RMS Student

Ryan Oliver - RHS Student

John Sutherby – RHS Student

Lauren Yang - RHS Student

Annabel Zhao - RHS Student



The Committee

RTSD Parents

Eileen Bookbinder - Parent

Erin Croke - Parent

Sarah Fox – Parent

Graciela Gonzalez-Hernandez – Parent

Emily Hannum - Parent

Pamela Kenney - Parent

Michelle Kirsch - Parent

Jacqueline Kloss, Ph.D. - Parent

Alicia Kolber - Parent

Thomas Le - Parent

Michele Leonard - Parent

Katherine Moore – Parent

Holly Movsowitz - Parent

John Reilly - Parent

Kristen Ressler - Parent

Rachel Ebby-Rosin - Parent

Shobha Sharma - Parent

Jeffery Wassell - Parent



The Committee

RTSD Community Members

Vicki Boettcher - Community Member

Laura Foran - Community Member

Lauren Sinon - Community Member

Roberta Winters - Community Member

RTSD Employees

Kenneth Batchelor – Superintendent

Dan Bechtold – RHS Principal

Michael Friel - RHS Athletic Director

John Hearn - RTSD Director of Transportation

Doug Kent, Ed.D. - RMS Assistant Principal

Carl Rosin – RHS Teacher

Anthony Rybarczyk, Ed.D. – Dir. of Elem. Teaching and Learning

David Stango - RHS Assistant Principal

Jessica Verguldi-Scott – RHS Teacher

Olga Zografakis – RMS Teacher



Summary of Events

Committee meeting dates:

- November 29, 2017
- December 14, 2017
- January 11, 2018
- January 25, 2018
- February 22, 2018
- April 12, 2018
- April 26, 2018
- May 7, 2018

Ongoing Updates to District website

<https://www.rtsd.org/domain/1430>

- Research and resources
- Progress updates
- Board Curriculum Meeting presentations



Summary of Events

To help achieve Committee objective #1, Dr. Wendy Troxel, Senior Behavioral and Social Scientist at the RAND Corporation and leading national sleep expert was contracted to make a variety of presentations in Radnor to help educate the community on this national public health concern:

Dr. Wendy Troxel presentations:

- March 12, 2018 afternoon
 - Teachers
 - Administrators
 - School Board Members
 - Sleep Adolescent and School Start Time committee
 - Staff, Administrators and School Board Members from surrounding districts



Summary of Events

Dr. Wendy Troxel presentations:

- March 12, 2018 evening
 - Students
 - Parents/guardians
 - Community representatives
 - Colleges/University representatives

Dr. Wendy Troxel presentations:

- March 14, 2018
- Students in grades 9th-12th
- Student Sleep Needs Survey was administered to students following Dr. Wendy Troxel's presentations

Video link to Dr. Troxel's RTSD parent presentation

- <https://www.youtube.com/watch?v=2Q8V-reBAIlg>



Summary of Teen Sleep Habits Survey

To help achieve Committee Objective #2, a validated, research-based *Teen Sleep Habits Survey was administered to Radnor High School students during their English classes during the two weeks following Dr. Troxel's presentation. 847 students responded to the survey. Responses were evenly split (approximately 25%) among each of the four grades.

I. Radnor Student Sleep Patterns:

Self-reported Circadian Rhythm:

75% of students say body not ready for bed before 10PM

Waking up in the morning:

95% of students are not "naturally" waking up in the mornings

90% of students feel sleepiness is a problem from some to a great extent

*Teen Habits Sleep Survey published by The Center for Applied Research and Educational Improvement, University of Minnesota, 2011.

Note: The American Academy of Pediatrics, The National Sleep Foundation and the American Academy of Sleep Medicine have all established that **adolescents need at least 8-10 hours of sleep per night** to function best (including better attention span, learning, memory, emotional regulation, overall quality of life, etc.)



Summary of Teen Sleep Habits Survey

II. Possible additional factors impacting Radnor student sleep and areas to possibly adjust:

Homework and Afterschool Activities:

- 44% of students reported homework most prevalent to dictating bedtime
- 63% of students reported 2-4 hours or more of homework per night
- 18% of students reported 4-6 hours of homework per night
- 58% of students reported 2-4 hours of homework on the weekend
- 64% of students reported they would go to bed earlier if not studying

Work:

- 27% of students work for pay
- Of those, 46% work under 5 hours per week
- 27% of students reported they work 5-10 hours per week

Organized Sports/Clubs:

- 45% of students practice/engaged in the evening
- 78% of students practice/engaged in the afternoon
- 37% of students engaged in club activities
- 66% participate in the afternoon, while 50% on school nights
- 37% of those reporting would go to bed earlier if they did not have extracurricular activities

Technology:

- 88% have their cell in their bedroom
- 16% have a TV in their bedroom
- 58% have a computer in their bedroom
- 50% turn every device off; 50% keep a device on



Summary of Teen Sleep Habits Survey

III Radnor Student Sleep Deprivation Coping Mechanisms

- 50% of students report napping from some to a great extent on school days
- 53% of students report consuming caffeinated beverages from some to a great extent on school days

IV Radnor Student Sleep Needs:

Waking up in the morning:

- 95% of students are not “naturally” waking up in the mornings
- 90% of students feel sleepiness is a problem of varying magnitude

Sleep Quality:

- 35% consider themselves a *poor sleeper*
- 46% of students stayed up 3 a.m. or later at least once within 2 weeks prior to administration of the survey
- 6% had a good night sleep within the 2 weeks prior to the administration of the survey

Need for Sleep:

- 23% believe they get enough sleep
- 75% believe they get too little sleep

Functionality and Mood:

- 31% arrived late to class due to oversleeping anywhere between once per week to every day/night
- 80% feel too tired to do things anywhere between once per week to every day/night
- 62% feel unhappy, sad or depressed anywhere between once per week to every day/night
- 73% feel nervous or tense anywhere between once per week to every day/night



Summary of Teen Sleep Habits Survey

Radnor High School Student School Start Time Preference:

- 85%: 8 a.m. or later
- 61%: 8:30 a.m. or later



Next Steps

To help achieve Committee Objective #3 the Study Committee has been split into subcommittees to evaluate issues such as school transportation, curriculum, policy, athletics, wellness, etc. that could be impacted by change.

Presentation of scenarios to the Curriculum Committee in June 2018:

- No change to school start time
- 30 minute change to school start time
- 60 minute change to school start time
- 90 minute change to school start time



Next Steps (cont.)

Possible implications of change for consideration:

- Transportation
- Athletics
- Extracurricular activities
- Beginning/ending times for all Radnor schools
- Traffic patterns
- Parent/guardian/staffing schedules



Researched-based Potential Outcomes

If a decision to change school start times occurs, the committee will reconvene one year after the change has been implemented to review the desired outcomes:

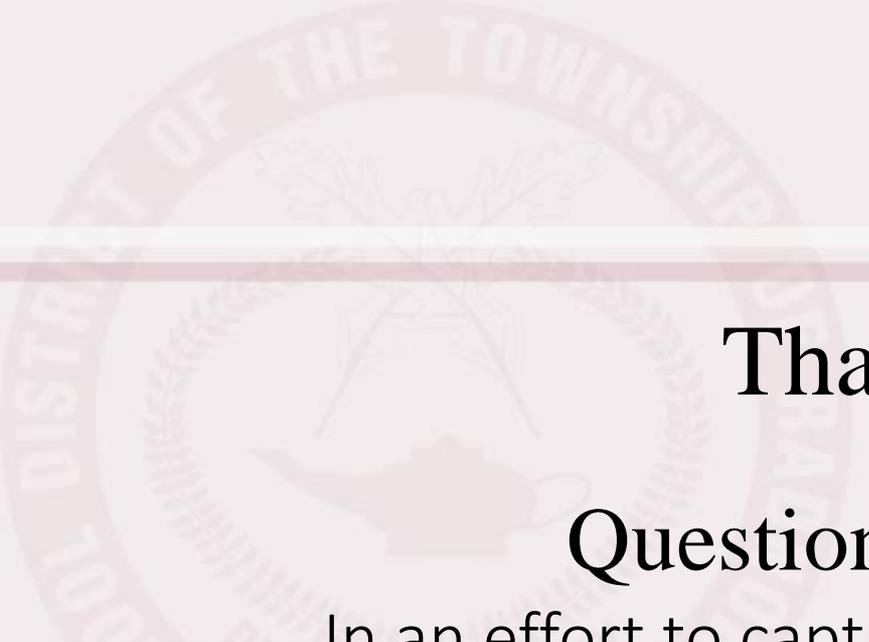
- Improvement in ability to participate more alertly in school day
- Reduction in tardiness/absenteeism
- Improvement in athletic performance
- Improvement in physical health and wellbeing
- Reduction in self reported sleepiness
- Reduction in reported emotional/psychological concerns
- Reduction in risk taking behaviors/disorderly conduct
- Reduction in negative sleep compensatory behaviors
- Reduction in athletic injuries





**No Recommendations
have been made...
but we're getting closer!**





Thank you!

Questions/Comments

In an effort to capture the thoughts of RTSD constituents regarding Adolescent Sleep/School Start Time, the committee has created an email address to gather community input. **Please send comments to sleep@rtsd.org.** The committee will consider all comments as part of its ongoing research.

