

The Case for Later School Start Times

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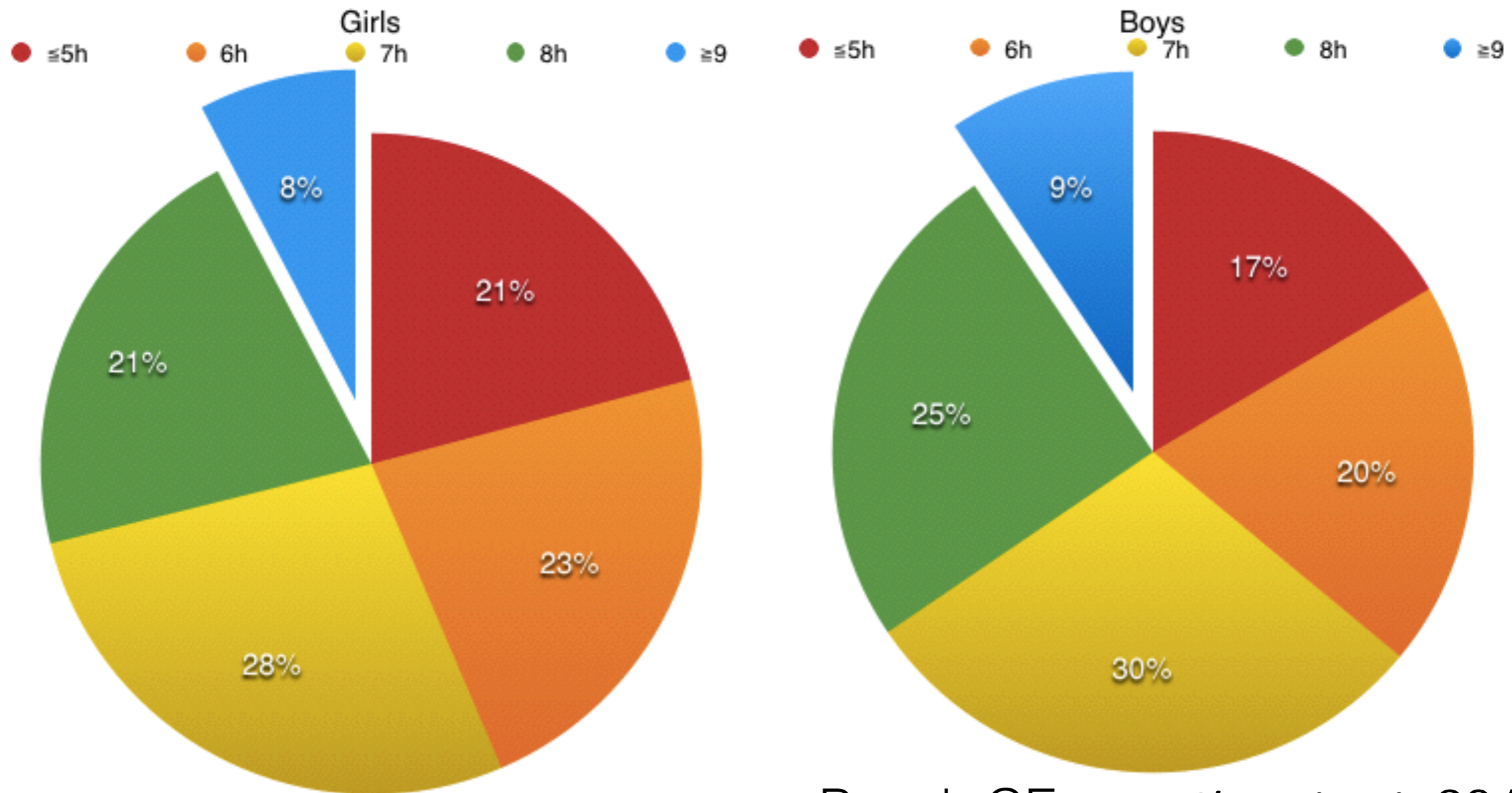
Guilford Parent (grades K & 3)

Craig Mullett
Guilford Parent (grades 5 & 7)

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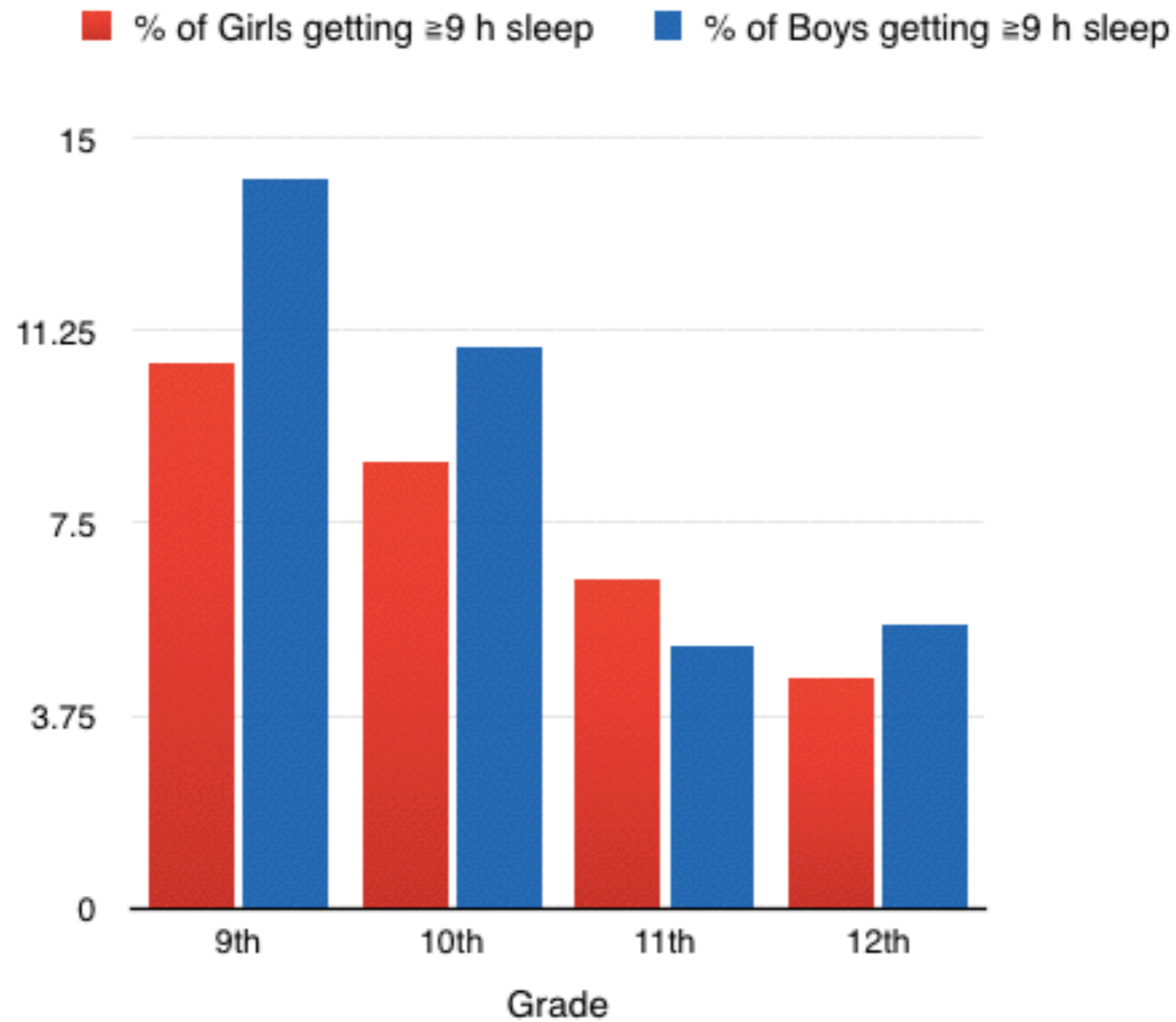
Less than 10% of teens get adequate sleep.



Basch CE *Prev Chronic Dis* 2014

There are many serious consequences to chronic sleep deprivation

As students proceed through high school, they become more and more sleep deprived





Why don't teens get enough sleep?



<http://bit.ly/1QNdB8E>

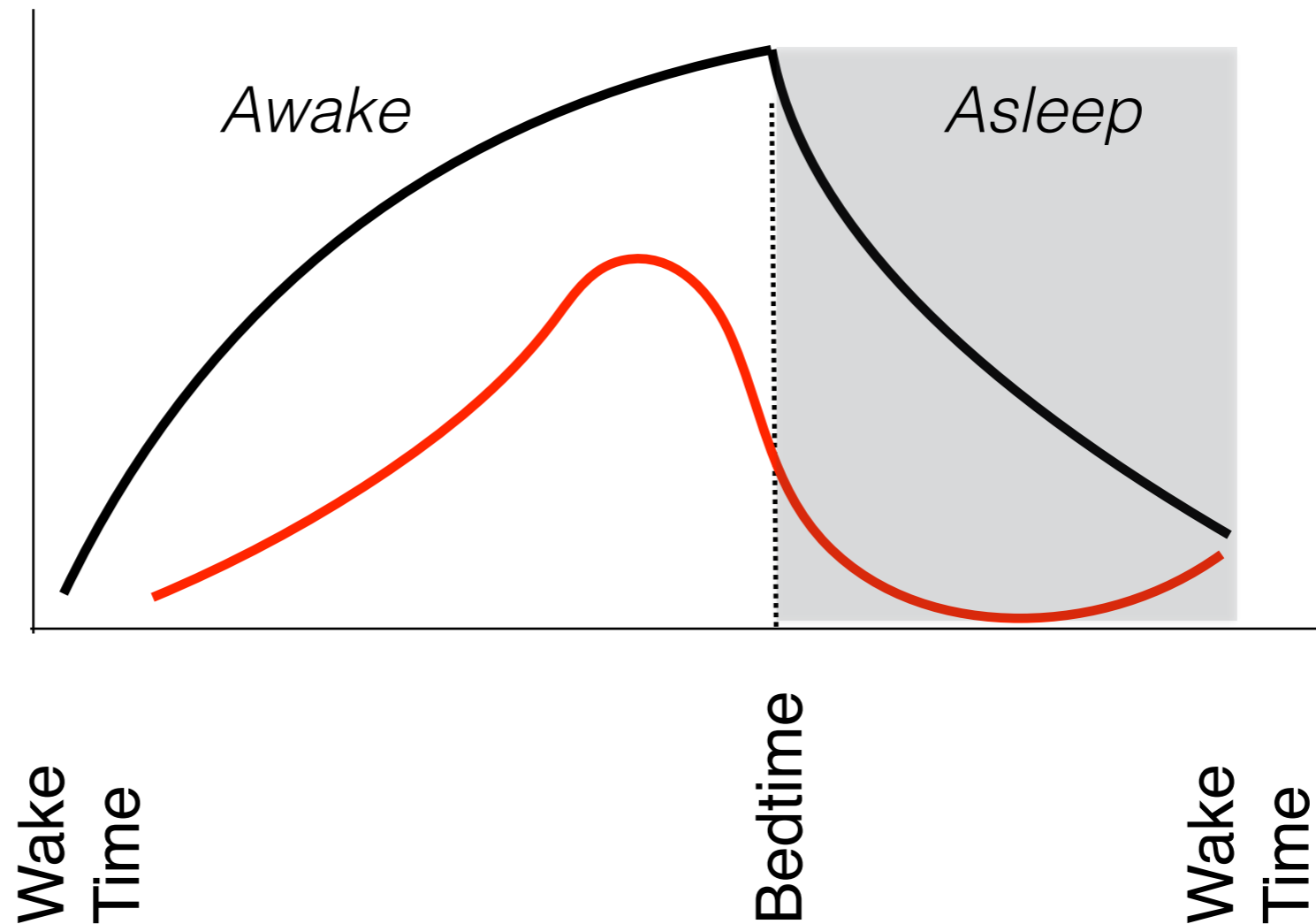


The biggest reason is the intersection of biology AND early school start times

Sleep drive increases the longer you are awake

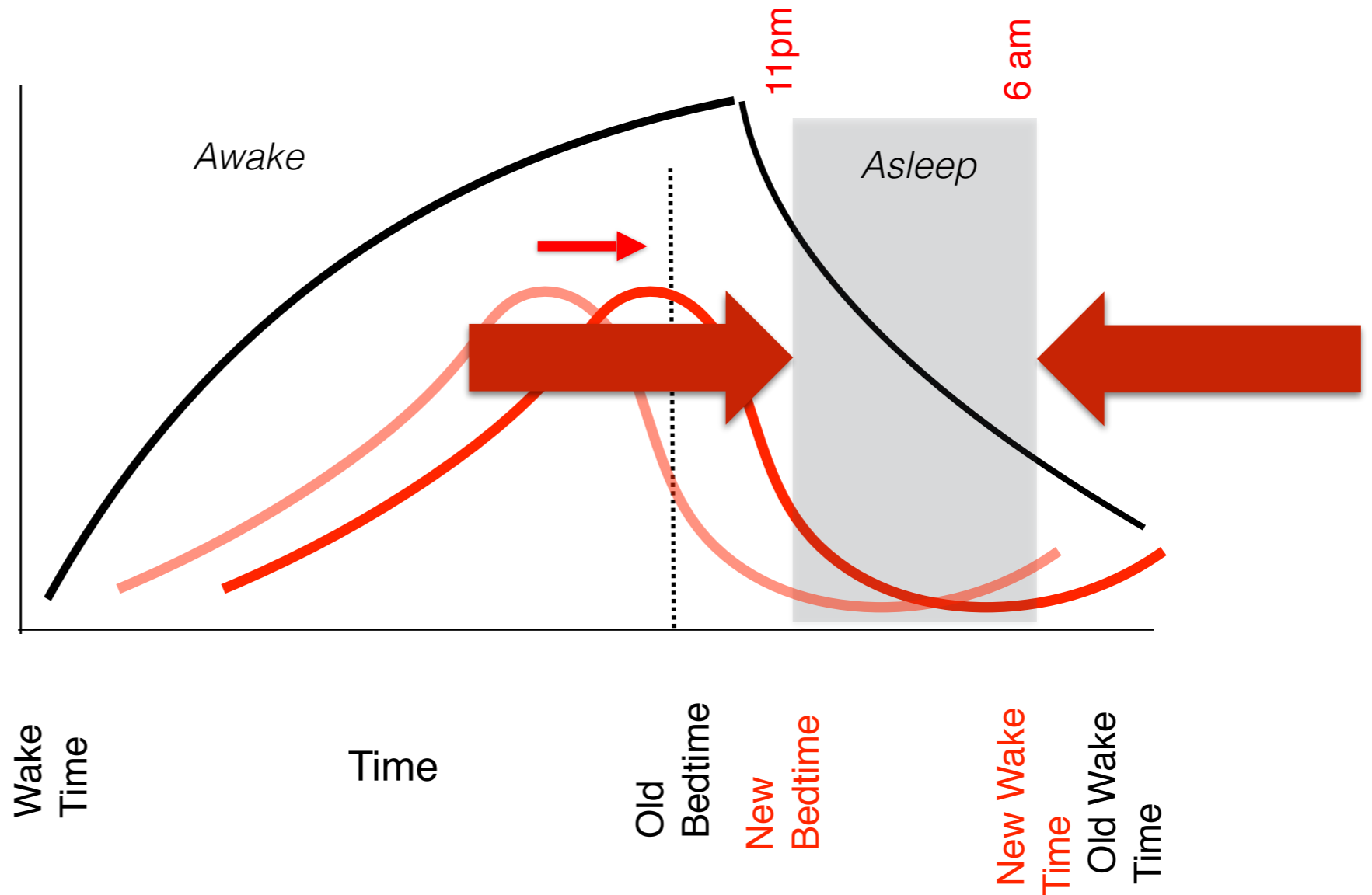
Sleep Drive

Wakefulness Drive



The circadian wakefulness drive keeps you awake in the late PM

Sleep Drive
Wakefulness
Drive



Teens have a physiologic delay in their circadian clocks even as school gets earlier

Consequences of Chronic Sleep Deprivation in Teens

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graph TD; A[Consequences of Chronic Sleep Deprivation in Teens] --> B[Health]; A --> C[Behavioral /Mental]; A --> D[Academic];
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Health

Increased obesity risk
Problems with cholesterol and high blood pressure
CAR ACCIDENT RISK

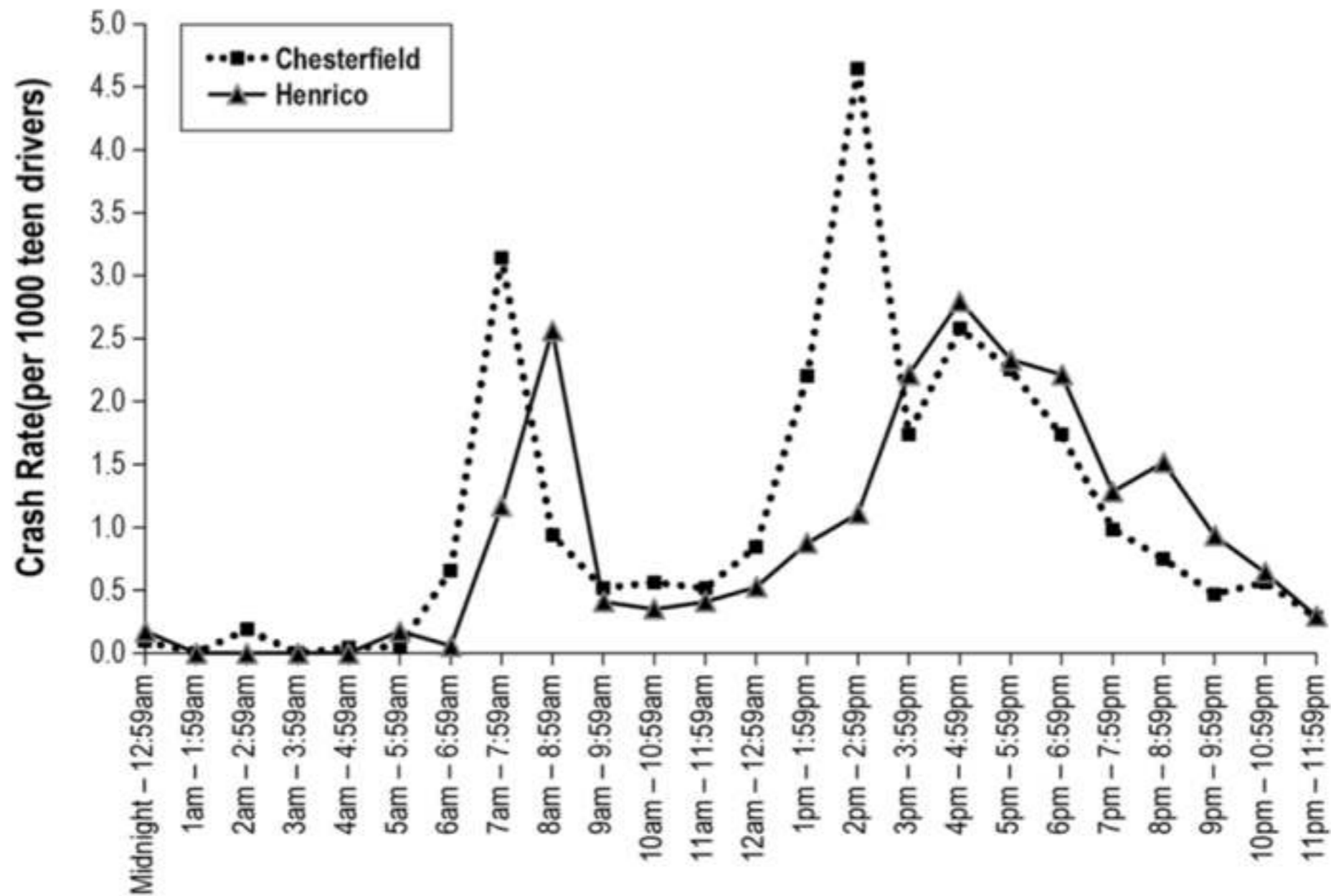
Behavioral /Mental

Anxiety/depression
Poor impulse control
Decreased motivation
Suicidality
Emotional problems

Academic

Poor attendance
Tardiness
Decreased test scores
Decreased problem solving
Attention and memory problems

Figure 2—Weekday crash rate of 16 to 18-year age groups in Chesterfield County and Henrico County for School Year 2010–2011 (Sept. 2010–May 2011).

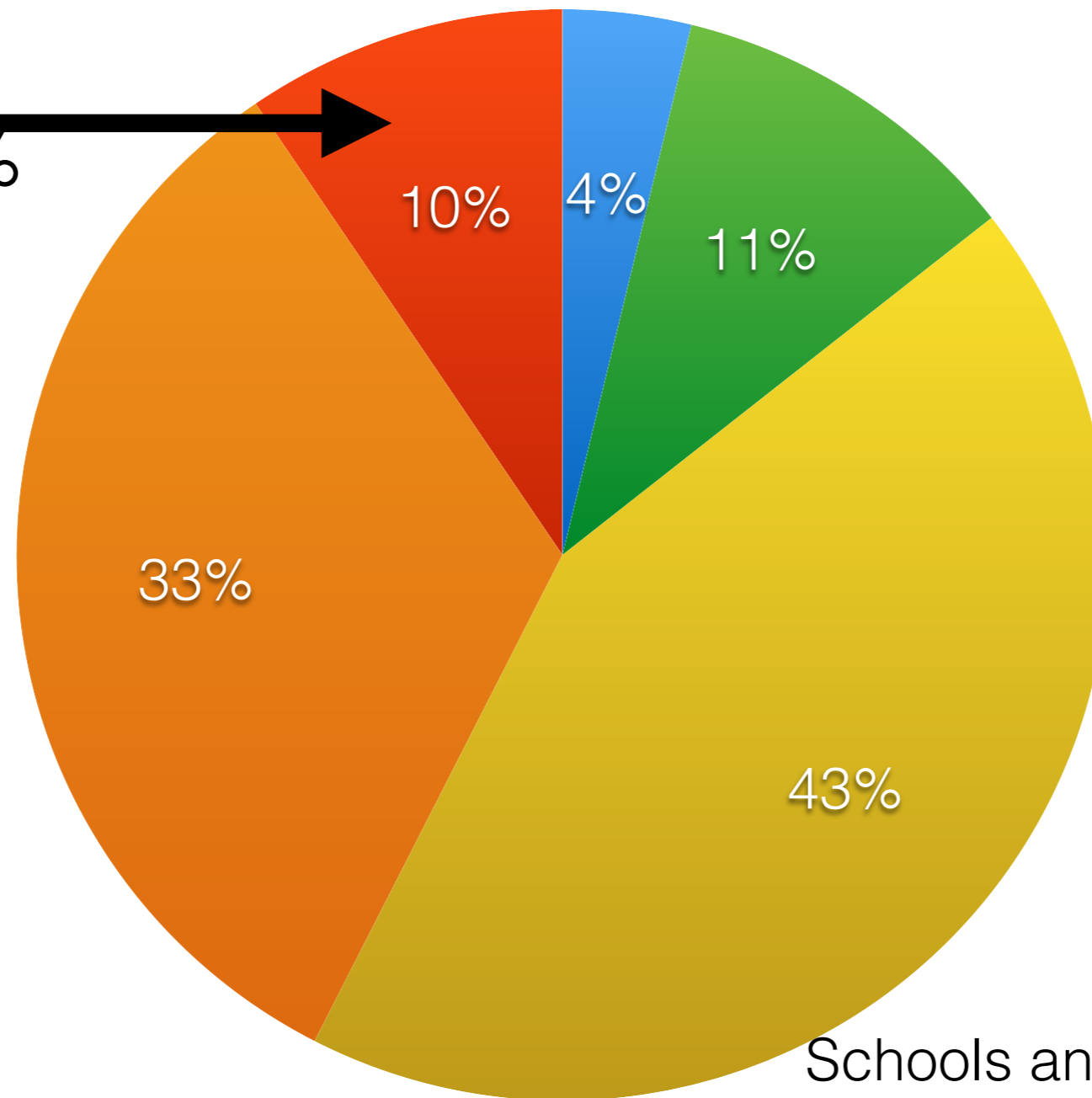


- Driving drowsy is like driving drunk
- **Early school start times are associated with a 30-70% increase in rate of teen motor vehicle accidents**

When does school start in the US?

● 9 or later ● 8:30-8:59 ● 8-8.29 ● 7:30-7:59 ● Before 7:30


Guilford:
Earlier than 90%
of schools
in the US



Schools and Staffing Survey, 2012

In 2014, the American Academy of Pediatrics recommended that high school start times be no earlier than 8:30 AM. The CDC followed suit in 2015

Myths about school start times #1



**“If kids can get up later,
they will go to bed later”**

Not true

The landmark study in Minnesota by Kyla Wahlstrom showed that an 85 minute delay in school start times did not result in later bedtimes; another study showed a 25 minute delay resulted in 29 more minutes of sleep.

Myths about school start times #2

Not true

“Sports and
other
extracurriculars
will suffer”

**Wilton, CT had several
state championships
after moving school
start time later**


**More sleep is
associated with lower
risk of injury in student
athletes**

Myths about school start times #3

“It’s always been
this way and we
turned out great”

Not true

**Until the 60s most
school start times
were between 8-9
am. The shift
occurred in the
70s.**

A person wearing a dark, long-sleeved dress and black sneakers with white laces is walking up a staircase. The scene is dimly lit, with a strong light source from the left creating a bright highlight on the person's dress and the steps. The background is dark and out of focus.

Myths about school start times #4

“It’s too expensive/
difficult/inconvenient”

Not true

**More and more school
districts are making the
change.**

“...if you knew that in your child's school there was a toxic substance that reduced the capacity to learn, increased chances of a car crash and made it likely that 20 years from now he would be obese and suffer from hypertension, you'd do everything possible to get rid of that substance and not worry about cost. Early start times are toxic.”

Judith Owens, Dir of Sleep Med, Boston Children's Hospital

Change is happening

- Over 1,000 schools in the USA have started later, with nearly all staying with the change
- Fairfax, VA just moved school start times later
- Seattle voted to move high school start times to 8:45 AM
- East Greenwich, RI is moving to a two tier bus system and 8 AM school start time

Positive Results From Later Starts

- Some results from schools that have moved school start times later :
 - 70% decrease in teen auto accidents
 - Increased academic performance on standardized tests
 - 3.7 percentile increase for Math (99% confidence level)
 - 2.8 percentile increase for Reading (99% confidence level)
 - **25 minutes delay results in 29 minutes more average daily sleep for students**
 - **In studies, teenagers, actually went to be earlier with later school start times**

Sources : Children's National Medical Center (2014), Boergers (2014), Edwards (2012)



Photo credit: visionary reactions <https://flic.kr/p/abPhZw>

SUMMARY:

- Ninety percent of teens are sleep deprived
- Guilford schools start earlier than 90% of schools nationally
- The most effective way to address this is to start school later

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