

## Changing High School Start Times: A Complex Policy Initiative to Help Teens Drive Safely

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### Overview / Key Concepts

- Teen brain development
- High school start times in US
- Research on start times and crash rates
- Issues in making a change
- Local steps to move forward

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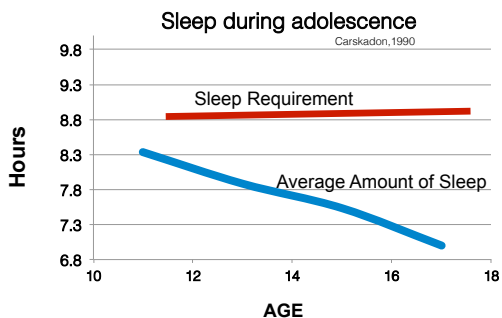
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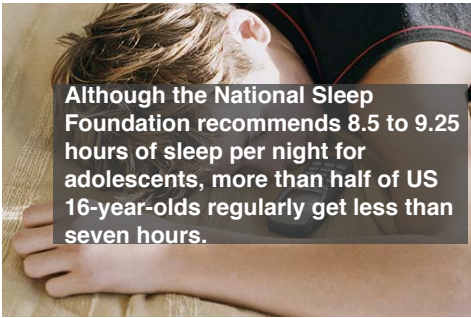
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Although the National Sleep Foundation recommends 8.5 to 9.25 hours of sleep per night for adolescents, more than half of US 16-year-olds regularly get less than seven hours.

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Early high school start times are one of the most significant obstacles to youth being able to get sufficient sleep.



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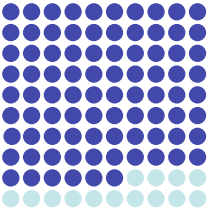
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**86%**  
Of all US high schools start before 8:30am.

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**A Clash of Strong Forces**

The diagram features two large green arrows pointing towards each other, forming a central point. The left arrow contains the text 'Biological Demand of Teen Brain (to be asleep from 10:45pm -8:00am)'. The right arrow contains the text 'High Schools Historically Start First'. The entire diagram is set against a white background with a dark red footer.

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**Start Time Research Study (2009-2013) funded by CDC**

- Eight high schools:
  - 5 schools in three Minnesota districts
  - 2 schools in Colorado district
  - 1 high school in Wyoming district
- Grades 9-12
- Start times ranged from 8:00 AM to 8:55 AM

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**Data Collection Methods**

- Student surveys N= 9,089
- Analysis of achievement and attendance data
- Interviews with decision-makers
- **Analysis of car crash data**

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### Car Crash Data

- Crashes involving 16- to 18-year-old drivers for September through May before and after the start time delay.
- Data from the state departments of public safety.

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### Overall Crash Findings

After the change to later start time, the number of crashes decreased overall by 13%.

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### Crash Analysis

- Jackson Hole, Wyoming, changed to start high school at 8:55am, and saw a 70% reduction in crashes in the first year after the time change.
- Reductions in other schools ranged from 6% to 65%.

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### Crash Analysis Caveats

- Due to privacy issues, it is difficult to link crash data directly to individual schools.
- Physical size of district (i.e., longer driving distances) and location (i.e., urban/not urban with numbers of controlled intersections) need to be considered.

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### The Bottom Line

The decision to start later must begin with the following premise:

Teens getting 8+ hours of sleep  
is the key to benefits  
for later start time.

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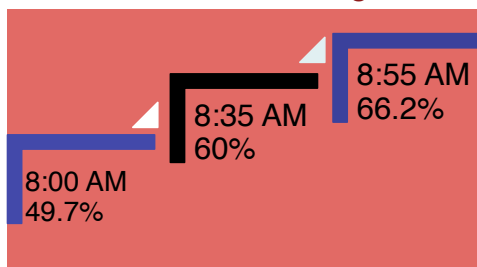
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### HS students sleeping $\geq 8$ hours on school nights



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### Making the Change: The Issues

- **Transportation** is usually the biggest hurdle (timing and costs).
- Concerns about **sports** can unnecessarily derail the discussion.
- Alternatives for **child care** before and after school must be considered.
- Involving and educating **the community** is a MUST to have successful change.

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### Next Steps: Educate!

- Public safety officials
- Parents
- Teens
- School administrators and teachers
- Health care providers

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For complete research report:  
<http://www.cehd.umn.edu/carei/Publications/>

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