

## Alternative Veterans' Exemption

- Section 458-a of RPTL Amendment
- Chapter 518 of the Laws of 2013 (signed into law 12/18/13) extends to school districts the Alternative Veterans' Tax Exemption.

### Eligible Veterans

- Those who served during a period of war (e.g. Persian Gulf Conflict, Vietnam War, Korean War, World War II)
- Those who received an expeditionary medal from the Armed Forces, Navy or Marine Corps
- Those who received the Global War on Terrorism expeditionary medal
- Reserve members meeting certain additional qualifications

### Board of Education Action

- Public Hearing held on at least five days' notice to the public
- Permissive and affirmative action by resolution

### Tax Exemptions

- Basic Exemption - Tax exemption of 15% of the assessed value of the property, not to exceed \$12,000 or \$12,000 multiplied by the latest state equalization rate for the assessing unit, whichever is less
- Combat Exemption - This is in addition to the Basic Exemption and is a tax exemption of 10% of the assessed value of qualifying residential property of veterans who are documented to have served in a combat zone, not to exceed \$8,000 or \$8,000 multiplied by the latest state equalization rate for the assessing unit, whichever is less
- Disabled Exemption - This is in addition to basic and combat zone exemption, where the veteran received a compensation rating from the VA or DOD based on a service related disability, the qualifying residential property will be exempt to the extent of the product of the assessed value multiplied by 50% of the veterans' disability rating, not to exceed \$40,000 or \$40,000 multiplied by the latest state equalization rate for the assessing unit, whichever is less

### Changing Exemptions Limits

- Requires a second hearing

### Gold Star Parent

- The Board may adopt a resolution to include a 'Gold Star Parent' within the definition of qualified owner.

- A Gold Star Parent is a parent of a child who died in the line of duty while serving in the U.S. Armed forces during a period of war.
- The property must be the primary residence of the Gold Star Parent.
- Only Basic and Combat Exemptions apply

### Additional Information

- The Alternative Veterans' exemption is not an automatic exemption. A veteran must file an application with the local assessor by the taxable status date and provide the required proof.
- If the veteran has not already applied for the exemption through the municipality, the application for exemption must be made by the owner on a form prescribed by the Commissioner of Taxation.

### Tax Shift

- The Veterans' Exemption is not reimbursed by the State and will result in a tax shift from one group of taxpayers to another group.

Exercise on Possible Impact of Veterans' Exemption

Town	Basic (Wartime)	15%/Max.\$12,000	Combat	10%/Max.\$8,000	Disability (Based on Veterans' Disability Rating - VDR)	50% of VDR/Max.\$40,000
Clinton	44	528,000	15	120,000	6	240,000
Hyde Park	4	48,000	2	16,000	1	40,000
Milan	8	96,000	10	80,000	1	40,000
Red Hook	0	0	0	0	0	0
Rhinebeck	187	2,244,000	148	1,184,000	38	1,520,000
Stanford	6	72,000	8	64,000	1	40,000
		2,988,000		1,464,000		1,880,000
Total Veterans' Exemption		6,332,000			Value of Exemption	6,332,000
True Value Tax Rate		15.604789			Total True Value	1,664,344,191
Maximum Shift of Levy Burden		98,809.52			% of Exemption of Total True Value	0.380%

# RHINEBECK CENTRAL SCHOOL DISTRICT

## ACTUAL TAX RATES FOR 2014-15

<u>TOWN</u>	<u>TOTAL ASSESSED VALUE</u>	<u>EQUAL RATE</u>	<u>TAXABLE FULL VALUATION</u>	<u>PERCENT FULL VALUE</u>	<u>TAX LEVY AMOUNT</u>	<u>2014-15 TAX RATE/1,000</u>
RHINEBECK	1,267,189,241	100.00%	1,267,189,241	76.14%	19,774,221	15.604789
CLINTON	259,518,782	100.00%	259,518,782	15.59%	4,049,736	15.604789
HYDE PARK	11,344,869	62.00%	18,298,176	1.10%	285,539	25.169015
MILAN	71,263,660	100.00%	71,263,660	4.28%	1,112,054	15.604789
REDHOOK	13,578,070	100.00%	13,578,070	0.82%	211,883	15.604789
STANFORD	<u>21,898,227</u>	63.48%	<u>34,496,262</u>	2.07%	<u>538,307</u>	24.582213
TOTALS	1,644,792,849		1,664,344,191	100.00%	25,971,740	

# RHINEBECK CENTRAL SCHOOL DISTRICT

## TAX RATES FOR 2014-15 WITH DEFAULT ALT. VETERAN LEVELS (Estimated)

<u>TOWN</u>	<u>TOTAL ASSESSED VALUE</u>	<u>EQUAL RATE</u>	<u>TAXABLE FULL VALUATION</u>	<u>PERCENT FULL VALUE</u>	<u>TAX LEVY AMOUNT</u>	<u>2014-15 TAX RATE/1,000</u>
RHINEBECK	1,262,241,241	100.00%	1,262,241,241	76.14%	19,774,200	15.665943
CLINTON	258,630,782	100.00%	258,630,782	15.60%	4,051,695	15.665943
HYDE PARK	11,240,869	62.00%	18,130,434	1.09%	284,030	25.267650
MILAN	71,047,660	100.00%	71,047,660	4.29%	1,113,029	15.665943
REDHOOK	13,578,070	100.00%	13,578,070	0.82%	212,713	15.665943
STANFORD	<u>21,722,227</u>	63.48%	<u>34,219,009</u>	2.06%	<u>536,073</u>	24.678549
TOTALS	1,638,460,849		1,657,847,196	100.00%	25,971,740	

# ESTIMATED INCREASE IN SCHOOL TAXES ON VARIOUS HOME ASSESSMENTS

<u>TOWN</u>	Increase in Tax Rate/\$1,000	Home Assessed at Various Amounts				
		200K	300K	325.92K	400K	500K
RHINEBECK	0.061154	\$12.23	\$18.35	\$19.93	\$24.46	\$30.58
CLINTON	0.061154	\$12.23	\$18.35	\$19.93	\$24.46	\$30.58
HYDE PARK	0.098636	\$12.23	\$18.35	\$19.93	\$24.46	\$30.58
MILAN	0.061154	\$12.23	\$18.35	\$19.93	\$24.46	\$30.58
REDHOOK	0.061154	\$12.23	\$18.35	\$19.93	\$24.46	\$30.58
STANFORD	0.096336	\$12.23	\$18.35	\$19.93	\$24.46	\$30.58

\$325,920 represents the average assessment of a single family home in Rhinebeck CSD

# Veterans Exemption - Dutchess County School Districts

Arlington	Currently not under consideration by BOE until the State figures out how to finance levy shift.	As of 11-13-14
Beacon	Currently under consideration by BOE, no hearing scheduled at this time.	As of 11-12-14
Dover	Adopted the Veterans' Exemption at the Default Level along with the Gold Star Parent	On 11-18-14
Hyde Park	Adopted the Veterans' Exemption at the Default Level	On 11-20-14
Millbrook	Adopted the Veterans' Exemption at the Minimum Levels	On 2-28-14
Pawling	Currently under consideration by BOE, no hearing scheduled at this time.	As of 11-14-14
Pine Plains	Adopted the Veterans' Exemption at the Default Level along with the Gold Star Parent	On 2-4-14
Poughkeepsie	Currently under consideration by BOE, no hearing scheduled at this time.	As of 2-6-14
Red Hook	Adopted the Veterans' Exemption at the Default Level along with the Gold Star Parent	On 11-5-14
Rhinebeck	Currently under consideration by BOE, no hearing scheduled at this time.	As of 11-14-14
Spackenkill	Adopted the Veterans' Exemption above the Default Level	On 2-25-14
Wappingers	Adopted the Veterans' Exemption at the Default Level	On 2-10-14
Webutuck	Adopted the Veterans' Exemption at the Default Level	On 2-24-14

[back](#)

## Red Hook veterans get a school tax break

By Hank Wagner

River Chronicle Staff | Posted 2 weeks ago

At the Red Hook Board of Education meeting on Wednesday, Nov. 5, the board voted to adopt the Alternative Veteran's Exemption from Real Property Taxation to give veterans who live within the Red Hook Central School District a break on their school taxes.

The exemption will cause a tax shift from the veterans to the rest of the Red Hook taxpayers. The school's business official Bruce Martin estimated the impact is at .65% on the tax bill for the rest of the community.

Martin said in late 2013, the veterans' exemption was extended to school districts. Because it happened so late in the year, there was not enough time to consider and approve the exemption by the May 1 deadline.

"One of the reasons we held off on this is when we did a calculation in the spring, there was some level of concern that when this would be available at the school level, there would be additional people who would come out and apply for the exemption and the projected impact would be different from the actual impact," he said.

Martin said he had looked into other school districts that already have implemented and the exemption and found there weren't any unforeseen consequences after implementing the exemption for veterans.

There are three basic levels of exemption: wartime, combat and disabled. The Wartime Exemption is 15% of the assessed value of the veteran's property and will not exceed \$12,000 of assessed value or \$12,000 multiplied by the latest state equalization rate for the assessing unit; whichever is less.

The next level is the combat exemption which is an additional 10%, but capped at an additional exemption of \$8,000 for a potential \$20,000 total exemption.

If the veteran were to have been disabled, they would qualify for the highest level of exemption, the Disabled Exemption, which is 50% of the assessed value of the property and will not exceed \$40,000.

There is also a Gold Star Parent feature in the exemption, which allows the exemption to go to a parent of someone who lost a child in the line of duty. That feature would only be available at the \$12,000 and \$20,000 levels.

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[back](#)

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Mosher said. "That's nothing we can do anything about."

Martin said if veterans are already receiving the exemption on their town and county tax, the assessor's office will automatically apply it to the school taxes once the school notifies them of the adoption.

He said the exemption could be modified upward, downward or flat-out eliminated by the school board in the future. This would require another public hearing and another board action.

If veterans need to apply for the exemption, Martin said it needs to be done before March 1, 2015 in order to be on the rolls in time for next fall's tax season.

Richard Wambach, who served three years in the Vietnam War as part of the U.S. Army's 101st Airborne Division commended the board for their due diligence this year in evaluating what the consequences would be if the exemption would be adopted.

"I came here last year for the first meeting on this and I revealed some information I had available," he said. "I've also been accommodating you with facts and figures... I think it's a very fair way to go and I appreciate that because we have neighbors who are veterans and nobody wants to have hard feelings about the issue."

President Mosher thanked Wambach and the rest of the veterans in attendance for their patience.

"This came on us fairly quickly," she said. "We would've had time to adopt it last year, but we are keen in noticing that the law of unintended consequences seems to rear its head frequently when we move a little hastily. So we appreciate your patience and your input while we looked through and figured everything out on this."

The board voted all in favor to adopt the tax exemption and thanked the veterans for both coming out to the meeting and for their service to our country.

"We are very mindful of the contributions our veterans have made to our community," Mosher said. "We're very grateful for their service and this seems to be a good way we can support them."

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# 2015-16 Potential Programs and Services

## Rhinebeck High School

Rank	Bldg	Description	FTE	Salary	Benefits	Other	Total	Explanations
1	RHS	Part-Time Teacher Aide	0.54	\$11,900	\$3,570		\$15,470	Add a 3.75 hour/day Teacher Aide to support the release of ELA teachers from study halls for a language lab.
2	RHS	Foreign Language AIS	0.10	\$9,125	\$2,281		\$11,406	Increase part-time French teacher by 0.1 FTE to provide student support.
3	RHS	Co-Curricular Activity Clubs		\$10,350	\$2,588		\$12,938	Create up to 5 additional extracurricular activities requested by RHS students.
4	RHS	Athletic Trainer		\$5,600	\$1,400		\$7,000	Increase the Athletic Trainer position by one hour per day to supervise the return to play protocol and begin treatment earlier.
5	RHS	Laptop Cart				\$36,760	\$36,760	To replace current six-year old laptop cart.
6	RHS	iPad Cart				\$19,890	\$19,890	Support use of technology in Physical Education classes.
7	RHS	Lacrosse, Swimming - Girls & Boys				\$15,000	\$15,000	Increase District financial support to offset fundraising.
8	RHS	Project Lead the Way	0.20	\$13,300	\$3,325	\$2,000	\$18,625	Add a third Project Lead the Way Engineering Course, assuming start up cost of program provided by RSF grant.
9	RHS	Cafeteria Tables				\$3,300	\$3,300	To replace three cafeteria tables.
10	RHS	Foreign Language - Honors	0.20	\$13,300	\$3,325	\$2,000	\$18,625	Add a section of Honors Spanish 3/Honors French 3, pending further study.

4.4.2  
Page

## 2015-16 Potential Programs and Services

### Bulkeley Middle School

Rank	Bldg	Description	FTE	Salary	Benefits	Other	Total	Explanations
1	BMS	Laptop Cart				\$36,760	\$36,760	Provide general technology access for all BMS courses.
2	BMS	GTT Elective	0.20	\$13,300	\$3,325	\$2,000	\$18,625	Add a technology elective.
3	BMS	Foreign Language	0.40	\$36,500	\$9,125	\$1,000	\$46,625	Increase French and Spanish programs in Grade 7 from every other day to every day.

### Chancellor Livingston Elementary School

Rank	Bldg	Description	FTE	Salary	Benefits	Other	Total	Explanations
1	CLS	STEM Teacher	0.50	\$32,800	\$35,000	\$3,000	\$70,800	Provide a full-time STEM teacher at CLS to create continuum between CLS and BMS that builds on the success of the GTT program, an increase from the current .50 teacher to 1.00
2	CLS	Part-time Secretary (FTE=0.15)	0.15	\$6,000	\$3,000		\$9,000	To provide three half-days of clerical support around AIS, 504, observation duties, etc. of the Assistant Principal.
3	CLS	Extended Response (Year 3)		\$15,000			\$15,000	Teacher stipends to support a third year of Extended Response in Math and Science; provide time for a cadre of 8 teachers to become teacher leaders to continue to turnkey strategies developed through this initiative.

## 2015-16 Potential Programs and Services

### District

Rank	Bldg	Description	FTE	Salary	Benefits	Other	Total	Explanations
1	Dist	Visitor Sign-In System				\$10,000	\$10,000	Provide software to process visitors to each building using drivers' licenses.
2	Dist	Afterschool Monitor		\$11,900	\$4,165		\$16,065	Provide after-school monitoring from 2:30 to 6:00 at BMS/RHS (3.5 hour position for 170 days).

### Facilities

Rank	Bldg	Description	FTE	Salary	Benefits	Other	Total	Explanations
1	O&M	Transfer to Capital Reserve				\$30,000	\$30,000	Establish a Capital Reserve balance to help offset future capital project needs as required.
2	O&M	Asbestos Removal				\$30,000	\$30,000	Provide for remediation of classroom asbestos floor tiles, one room per year.
3	RHS	Physical Education Storage				\$8,000	\$8,000	Provide the RHS Physical Education program with additional storage space.
4	RHS	Accuoustical Panels				\$30,000	\$30,000	Provide sound dampening materials to reduce the echo effect in the RHS gymnasium.
5	RHS	Carpet Replacement				\$40,000	\$40,000	To replace RHS guidance office carpeting with tile flooring. Project would require asbestos abatement.
GRAND TOTAL			2.29	\$189,425	\$73,691	\$269,710	\$532,826	

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PERSONNEL COMMITTEE

DECEMBER 3, 2014

Present : Diane Lyons, Lisa Rosenthal, Rick Walker, Joe Phelan, Tom Burnell,  
and David Shaw via phone.

The Committee sought David's guidance on the following topics.

Topics :

- 1.) Procedure for tenure review.
- 2.) Discussion with unaligned employees.

Respectfully submitted,

Richard Walker

# A 2020 VISION

## FOR PUBLIC EDUCATION in ULSTER COUNTY

### Later School Start Times for Adolescents

August 2014



The Center for Research, Regional Education and Outreach, SUNY New Paltz  
Ulster County School Boards Association

# Later School Start Times for Adolescents

The idea of later school start times for adolescents has become a front burner issue across the nation in recent months, in part as a result of the convergence of two streams of research (New York Times, 2014; Washington Post, 2014). First, biological scientists have shown that late-rising teenagers are not just lazy, as stereotypically assumed. Rather there is an emerging consensus among these researchers that sleep cycles change as children mature into adolescence, causing teenagers to fall asleep later in the evening and sleep later into the morning. Meanwhile, a parallel body of research has identified multiple benefits of adequate sleep for adolescents. Recently, a study conducted by researchers at the Center for Applied Research and Educational Improvement at University of Minnesota, and funded by the Center for Disease Control (CDC) confirmed multiple academic, emotional, social, and health benefits that derive from additional sleep afforded by later school start times (Wahlstrom, 2014). Importantly, this study also shows that when school starts later—and is thus aligned with adolescent sleep cycles—adolescents actually get more sleep.

It was in recognition of these findings that U.S. Secretary of Education Arnie Duncan endorsed the idea of starting high school later in the day (August, 2013). In the last 10 years, school districts in California, Oklahoma, Georgia, New York, Connecticut, North Carolina, Kentucky, and Minnesota have changed schedules to accommodate later start times for their adolescent students. Currently, countywide school districts in Virginia and Maryland are considering changing the times of their first school bell, as are urban districts in St. Paul, MS and Richmond, VA. In 2009, members of the U.S. House of Representatives introduced House

Concurrent Resolution 176 (also known as the Zzz's to A's Resolution) in support of later school start times, and in 2014, a landmark bill passed by the Maryland legislature requires state health officials to conduct a study on the sleep needs of students and the experiences of schools that have shifted to later start times. These actions have propelled what has been a local conversation to a national, and statewide, arena (Washington Post, 2014; Kelley & Lee, 2014).

This policy brief summarizes the research on later school start times for adolescents and provides a framework for thinking about the implementation of this idea in Ulster County, New York. It is the work of the School and School District Structure study group, a subcommittee of *A 2020 Vision for Public Education in Ulster County*.

*A 2020 Vision for Public Education in Ulster County* was a symposium convened in November, 2013 to begin the process of proactively shaping a vision for public education in the county's communities. Stakeholders from eight Ulster County school districts gathered to use a regional lens to engage questions of teaching and learning, accountability, and school and school district structure. In doing so they self-consciously began the process of generating thoughts and ideas about ways to promote county-wide, regional thinking in the service of improving educational delivery. The School and School District Structure study group, with participation from numerous stakeholders with diverse perspectives, from multiple Ulster County school districts, continued this work through monthly meetings. Participants identified and researched issues for further consideration by the larger 2020 group. School start times for adolescents is one of these issues.

A policy brief of the School and School District Structure Study Group by  
Tony Fletcher, President of the Board of Education in the Onteora Central School District, and  
Robin Jacobowitz, PhD, Education Projects Director at CRREO



...there is an emerging consensus among these researchers that sleep cycles change as children mature into adolescence, causing teenagers to fall asleep later in the evening and sleep later into the morning.

## Sleep and adolescents

Getting sufficient sleep is an important factor in the overall health for people of all ages, affecting memory and learning, attention capacity, and a range of emotional and physical health outcomes (Moller-Levet et al., 2013; Foster et al., 2013; Payne, 2011; Knutson, 2007). The amount of needed sleep, and the patterns and cycles of that sleep, differ for people of different ages. For youth, the circadian timing that drives sleep shifts as children develop into adolescence; wakefulness-inducing hormones (cortisol) persist longer throughout the day and sleep-inducing hormones (melatonin) are triggered later in the evening and last longer into the morning. This causes adolescents to fall asleep later at night and wake later in the morning than younger children or adults (Carskadon et al., 1997; Wolfson & Carskadon, 1998; Crowley et al., 2007). The presence in adolescents of sleep-inducing hormones (melatonin) further into the morning makes early morning functioning even more difficult for these youth (Carskadon et al., 1998). The difference between adolescent circadian rhythms and those of younger children and adults is as wide as three hours. (Kelley & Lee, 2014).

This does not mean that teenagers need less sleep. Researchers find that adolescents still require at least 9 hours of sleep each night (Hansen et al., 2005; National Sleep Foundation, 2000; Carskadon et al., 1998). It is physiologically natural for adolescents to fall asleep late at night and then sleep later into the following morning.

Notwithstanding this reality, the school day for adolescents usually begins between 7:00—7:45am. Moreover, students are required to rise early enough to board the bus or pull out of their driveways up to an hour in advance of these start times. Combined with the biologically-driven predisposition to stay up later, this makes getting the optimum 9 hours of sleep unlikely (Hansen et al., 2005; National Sleep Foundation, 2000; Carskadon et al., 1998). The result is a “circadian misalignment” with observable negative consequences for education and youths’ physical and mental health more generally (Hasler & Clark, 2013, pp. 558; see also Wahlstrom et al., 2014; Leger et al., 2013; Willingham, 2012; O’Malley & O’Malley, 2008; Hansen et al., 2005).



Negative effects for adolescents are academic, social, mental, and physical, and include:

- **Academic complications**

Research demonstrates that insufficient sleep is associated with decreased memory capacity and decreased capacity to sustain attention during the performance of academic tasks (Beebe et al., 2010). Studies show lower scores on quizzes and higher incidents of “inattentive” and “sleepy” behaviors—e.g. yawning or putting one’s head on the desk—for students who were deprived of adequate sleep than for these same students when they received adequate sleep (Beebe et al., 2010). Another study finds that less sleep—even if a student stays awake to study—results in greater academic problems, such as poor quiz scores or difficulty understanding academic material, and that these problems compound as the effects of lack of sleep accumulate over students’ high school careers (Gillen-O’Neel et al., 2013).

- **Greater risk-taking behaviors**

Research finds greater risk-taking behaviors, such as substance abuse (use of alcohol, cigarettes, marijuana); sexual activity, aggression, and lack of physical exercise, among adolescents who report insufficient sleep (fewer than 8 hours) (McKnight-Eily et al., 2011; see also Hasler & Clark, 2013; O'Malley & O'Malley, 2008; National Sleep Foundation, 2000).

- **Greater risk for depression**

Studies show that students who get inadequate sleep are more likely to suffer from depression, experience anxiety, and express suicidal thoughts (McKnight-Eily et al., 2011; Moore et al., 2009). Researchers have also found a relationship between sleep and adolescents' own sense of their emotional state, mood, and ability to regulate and control their emotions. Sleep-deprived adolescents (who get fewer than 8 hours of sleep) report more feelings of anxiety, irritability and hostility than their well-rested peers (Baum et al., 2014; Carskadon & Acebo, 2004). In one study, these self-reports are corroborated by parental reports (Baum et al., 2014).

- **Poorer physical health**

Incidents of obesity are higher among adolescents who get insufficient sleep: "for each hour of lost sleep, the odds of obesity increased by 80%" (Gupta, 2002, pp. 762). Athletes who got less than eight hours of sleep were 1.7 times more likely to suffer an injury than those who got more than eight hours of sleep (Milewski et al., 2014).

- **Greater risk of injury from accidents**

Research has found a relationship between adolescent car accidents and lack of sleep; in a study of driving records of 17–24 year olds, young people who reported the least sleep were 21 percent more likely to have been involved in a car accident than those who reported the most sleep (Martiniuk et al., 2013; see also Cirignotta, 2010).



Research that specifically explores the impact of later school start times finds multiple positive outcomes for adolescents in these areas of risk. And, importantly, research shows that adolescents get more sleep when school starts later and is thus more closely aligned with their natural sleep cycle (Wahlstrom, 2014; Boergers et al., 2014; Perkinson-Gloor et al., 2013; Edwards, 2012; Owens et al., 2010). Positive academic and health outcomes from later school start times include:

- **Better academic performance**

Researchers find higher grade point averages in core academic classes (Wahlstrom et al, 2014), higher grades in general (Carrell et al., 2011; Perkinson-Gloor et al., 2013; Short et al, 2013), and generally higher test scores (Edwards, 2012) for adolescents in schools with later start times.<sup>1</sup>

- **Reduced tardiness and absences**

Studies find an increase in attendance, a decrease in lateness, and a decrease in excused absences in schools that have moved to later start times (Wahlstrom, 2014; Drake et al, 2003).

- **Less depression**

In a study of the impact of school start time on students' sleep habits and depressive mood, researchers surveyed students before a delay in start time was implemented (8:00am) and after (8:25am); on average, students report getting more sleep and experiencing fewer incidents of depression than prior to the change in school start time (Boegers et al, 2014; see also Owens et al, 2010). More generally, 92% of parents whose adolescent children attended school before and after a change to a later start time reported that "their children are easier to live with as a result of the change (to a later school start time)" (Wahlstrom, KCRW radio interview, 4/7/14).

- **Fewer car accidents**

In Fayette County, KY, adolescent car crashes were reduced by more than 16% in the two years subsequent to instituting a later start time for high schools

<sup>1</sup> Empirical evidence about outcomes on standardized tests is inconsistent (see Wahlstrom et al., 2014 and Hinrichs et al., 2011).



(Danner 2008). In Teton County, WY, the year after the high school first bell was delayed from 7:35am to 8:55am, car accidents for 16-18 year olds reduced from 23 to 7, a 70 percent reduction (Wahlstrom, 2014).<sup>2</sup> Likewise, in a study of adolescent car accidents and school start times, researchers found significantly higher accident rates for teenagers in a county with an earlier school start time than in a neighboring county with a later school start time. In both counties the majority of these accidents occurred during the morning commute to schools (Vorona et al., 2011).

Findings from the most recent research reveal “empirically-based positive outcomes for adolescents whenever the start time of their high school is moved to a later time—with the starting time of 8:30 AM or later clearly showing the most positive results” (Wahlstrom, 2014, pp. 52). It is this research, within the context of the larger body of empirical evidence about adolescents’ sleep needs and sleep cycles that has prompted educators and policy makers at the local, state, and national levels to advocate for later start times for schools attended by adolescents.

Findings from the most recent research reveal “empirically-based positive outcomes for adolescents whenever the start time of their high school is moved to a later time—with the starting time of 8:30 AM or later clearly showing the most positive results”

Wahlstrom, 2014, pp. 52).

## Hurdles, and solutions, to altering school start times

Despite overwhelming empirical evidence about the benefits of sleep for all aspects of adolescent health, and the misalignment between adolescent sleep needs and school start times, hurdles to the implementation of later school start times persist. Researchers who documented the process of changing to later start times have identified the following hurdles and potential solutions (Wahlstrom et al, 2014; see also [sleepin Fairfax.org](http://sleepin Fairfax.org)):

### • Extracurricular participation

There is a concern that later school start times—and therefore later school end times—will limit students’ ability to participate in sports, other after-school activities, and part-time employment. Evidence is mixed. Some districts saw an increase in participation in sports and others noticed improved athletic performance (National Sleep Foundation, 2000). Researchers also found that most employers asked student-employees to begin work after 4:00pm, so a later school end time did not impact employment (National Sleep Foundation, 2000). However, another study found that in urban settings later start times did result in less student participation in extracurricular and social activities and also created conflicts for students who worked after school, sometimes diminishing their earnings (Freeman and Wahlstrom, 1997). This same study found no effect of later start times on extracurricular participation and employment for suburban students. This remains an important issue that warrants close attention at the implementation phase of later start times.

**Strategies for addressing extracurricular participation:** Overall, districts that have shifted their school start times later have found ways to address concerns about extracurricular participation. These include providing lighting for sports fields so that practice can run later during seasons with early nightfall, and/or scheduling extra games and practices on weekends. Another idea has been to incorporate,

2 This large reduction in teenage accidents was noted for two out of the four districts in Wahlstrom’s study (2014); the third district saw a smaller reduction (6%) and the fourth district saw an increase (9%). Wahlstrom attributes the increases in the fourth district to the geographic circumstances of that district.

where possible, an "activity period" into the school day so that, effectively, the day would not end later, even as it starts later. (In some schools, the last period of the day is a student-optional period during which some clubs operate or students may seek extra help if needed. Sports practices begin, generally, after this period has ended.)

- **Transportation**

Bus schedules are often linked and shared among schools and grade levels within a district; buses that drop high school students at school then return to pick up younger students. Moving the start time for students in upper grades may require a shift in transportation for other schools as well.

**Strategies for addressing transportation:** Solutions that do not involve the addition of bus runs include moving all the start times back so that all students go to school later, or "flipping" the start times of all district schools so that younger students go to school earlier and older students go to school later. Moving to a single bell schedule, so that all schools begin at the same time, can mean adding more buses, which is not always a feasible option with tight school district budgets.

- **Child care**

Some families use their older children to provide childcare for the younger ones while parents are still at work. "Flipping" the schedule, so that younger children leave for school—and get home—earlier than older children can present childcare challenges in the afternoon. Relatedly, if school districts move the start time of all schools to later in the morning, then some families may encounter morning childcare problems.

**Strategies for addressing childcare issues:** Some districts have worked with local organizations to provide additional before or after-school care for younger students. Others have worked with community partners to provide extra-curricular activities for younger students.

In Ulster County, region-specific hurdles have hindered the efforts of school districts to enact later school start times. For example, alignment with the countywide Board of Cooperative Educational Services (BOCES) schedule is an issue. BOCES provides classes on a regional basis to high school students from all of its component school districts. If one district unilaterally decides to push the start of its high school to later in the morning, this may impact the ability of that district's students to get to a BOCES class on time.

Another regional issue is the scheduling of athletic events, since Ulster County districts compete against one another in sports.

Both of these challenges—the BOCES schedule and athletics—could be addressed through an alignment of Ulster County school districts' schedules and a simultaneous shift to later school start times. The BOCES schedule could then be adjusted accordingly and athletic competitions scheduled, as currently, at the end of the school day. Alternatively, BOCES could, perhaps, establish a two-tiered schedule to accommodate different start times of component districts.

The range of educational and other benefits of later school start times for adolescents are compelling and well-established in the research. Most hurdles are logistical. This does not mean that these hurdles are not real or meaningful. However, it does mean that they are surmountable. How might this be done? How have others accomplished it?

## **Process of making the switch: case studies of implementation**

There are many ways to implement later start times: "flip" the timing of high school and elementary schools so that high school students begin school later and elementary school students begin school earlier; move the start times of all schools to later in the morning; add additional buses so as to transport students of all ages to school concurrently; delay start time and maintain end time; or provide flexible start and end times.

There is growing experience with the change process. Already in New York State, Glens Falls switched its high school start time from 7:45am to 8:26am, and is reporting positive results; assistant high school principal Elisabeth Collins reported that data show, “our students are getting up to 30 minutes more of sleep a night, our discipline write-ups have lessened, our tardiness rate is not as severe as it was 2 years ago. And another very important point is that the students are failing fewer courses in their day” (Radio interview, KCRW, 4/3/14; Brian Lehrer show, 4/10/14; see also <http://www.gfsd.org/News/2013-14/041514NYCsleep.cfm>). More recently in Ulster County, the New Paltz school district has begun conversations about shifting the start time of its high school to later in the morning. Across the nation we are seeing that moving to later start times is, generally, a one-to-two-year process, beginning with community conversations and forums about the benefits of later start times, and then moving on to discussions about logistics. Following are two case studies that briefly describe this process.<sup>3</sup>

#### **Arlington, VA**

Arlington Public Schools is a countywide school district located outside of Washington, DC. At the time that the district moved to later start times for its high schools, in 2001, it had 30 schools and approximately 19,000 students. (In comparison, all Ulster County districts together enrolled, collectively, approximately 24,300 students in the 2011-12 school year.) Prior to the change to later high school start times, there was a four-tier transportation protocol; high school began at 7:30am, middle school and upper elementary at 8:10am, early elementary at 8:50am and alternative schools at 9:20am. Arlington began its process by establishing, with community input, the five conditions that would have to be met for change to be implemented:

- any change to school start times would have to improve teaching and learning,
- no school would start before 7:50am,
- no one group would be disadvantaged by the change,
- extracurricular activities would not be significantly impacted, and,
- as funding was constrained, the change could not require additional buses.

Once the school board decided, after a comprehensive review of the research, to proceed with later high school start times, the superintendent appointed an interdepartmental team to study how to implement the change. This team developed twelve possible scenarios for implementation; each was studied for feasibility. All meetings were open to stakeholder participation. One committee, dedicated completely to public engagement, reached out to the community through newsletters and updates to PTAs, school district employee newsletters, press releases, updates on the district webpage, and an email account dedicated to receiving—and responding to—questions and concerns from the community about the start time change. Crucially, engagement with the public allowed all stakeholders to have input into the change. Also important, public engagement continued after a final proposal was selected; the team that was responsible for the implementation of delayed high school start times addressed critical implementation issues, and their solutions, through a series of white papers that were distributed to the community.

Arlington’s transition to later high school start times took approximately two and a half years. High schools there now begin at 8:15am, middle schools at 7:50am, and elementary schools at 8:00am, 8:25am, or 9:00am. An informal post-change survey revealed that high school students felt more alert and better prepared for school, high school teachers noted an increase in participation and student attention, and parents reported better attitudes from their high school students. However, middle school students—who now begin school the earliest—reported feeling less alert.

#### **Wilton School District, CT**

The Wilton School District implemented a new start time for high school students in the fall of 2003. At that time, there were 4,300 students in the Wilton School District, served in 5 school buildings (two k-2 buildings, one 3-5 building, one middle school and one high school. The high school enrollment was about 1200 students). Prior to the change grades 6-12 began at 7:35 a.m. and grades 3-5 at 8:15am. The K-2 schools began at 9:00am. A three-level bus route accommodated these three different start times.

3 This information was taken directly from the Start Later for Excellence in Education Proposal website, [www.sleepin Fairfax.org/docs/CS.Arlington.pdf](http://www.sleepin Fairfax.org/docs/CS.Arlington.pdf), [www.sleepin Fairfax.org/docs/CS.Jessamine.pdf](http://www.sleepin Fairfax.org/docs/CS.Jessamine.pdf).

The shift to a later start time for the high school followed a two-year public engagement process—initiated by the Wilton League of Women Voters. The League played a convening, public awareness, and support role throughout this two-year process, attending multiple PTA meetings, convening its own public information sessions, and developing and implementing (in conjunction with the Norwalk Hospital Center for Sleep Disorders) a survey to garner student and staff input into the process. A major source of resistance to later start times was fear that change would preclude participation in the Wilton Sports Council, which represents local sports leagues. Public engagement efforts included working with the Council, which eventually came to support the idea.

In 2003, Wilton initiated a change in its school start times, flipping the schedule so that grades 3-5 begin at 7:35am and grades 6-12 begin at 8:15am. Start times for K-2 remain unchanged. Outcomes from the shift were predominately positive. Teachers reported better behavior and attention from students; interestingly, there was an increase in the participation in athletics. Parents reported more positive behavior and a survey, conducted by the Norwalk Hospital Sleep Disorders Clinic, found that students were getting more sleep. Students reported getting better grades. There were scheduling issues that arose with athletic events that were not played at home; in many instances, athletes were pulled from class earlier to attend away games. Overall, Wilton residents felt that the shift to later start times was a success.

## Conclusion and next steps

Later school start times for adolescents is just one of several issues that the School and School District Structure study group, a subcommittee of the *A 2020 Vision for Public Education in Ulster County*, will present to participants in the larger 2020 Vision initiative for further consideration and possible action.

The mission of 2020 is to promote county-wide, regional thinking in the service of improving educational delivery. In Ulster County, the regional obstacles to implementation of a later school start time include scheduling with Ulster BOCES in the delivery of valuable educational services to students and potential coordination of sports programming. Aligning schedules and calendars, regionally, could mitigate these obstacles.

The research on later school start times is compelling and clear. Now education stakeholders in Ulster County must come together to decide whether this is a change that we want to embrace and if so, how we should go about doing that. While decisions must be locally-based and supported, regional implementation can facilitate the process.

The School and School District Structure study group hopes that the issue of later school start times will be the subject of thoughtful, measured deliberation at the reconvening of *A 2020 Vision for Public Education in Ulster County* in December, 2014.

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## Ulster County School Boards Association

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