**High schools with late start times help teens but bus schedules and after-school can conflict**

By [**| Associated Press**](http://www.ap.org/)

NEW YORK – Quinn Cooney of Mill Creek, Wash., is excited about starting high school in September, but she's not looking forward to waking up at 5:30 a.m. to arrive on time. Classes for ninth-graders start at 7:30 a.m., 45 minutes earlier than they did in middle school.

"I think it is going to be harder to get up," said Quinn, 13. "I do think it is better to start early so that we can be finished early and do things after school, but I am worried that if I have a boring class for my first period that it will be hard to stay awake."

Decades of sleep research have confirmed what parents know: It's hard for teenagers to wake up early. Some high schools have adopted late starts around 8:30 a.m. to improve attendance and performance. But other districts say it's too complicated to shift schedules because of logistics involving buses and after-school activities.

About 40 percent of U.S. public high schools open before 8 a.m., according to the U.S. Department of Education's National Center for Education Statistics, with just 15 percent starting 8:30 a.m. or later. In districts where early starts are necessary because the same bus does multiple runs for high school, middle school and elementary students, teens often get the early shift.

That's the case in Anne Arundel County, Md., where public high schools start at 7:17 a.m. and buses start running at 5:50 a.m. Lisa Rodvien taught high school there, in Annapolis, and says attendance at her first-period classes was "as low as 50 percent or below." Among those who showed up, "I would definitely see three or four kids with their heads down. You walk over to them to wake them up and get them to sit up, and you see that they're exhausted."

Earlier this year, Anne Arundel school officials laid out options for delaying start times to anywhere from 7:32 a.m. to 9:45 a.m. along with potential complications, such as additional costs if buses are added, child care issues where late-day schedules might prevent teens from picking up younger siblings after school, and implications for teams if they end up playing in the dark. Bob Mosier, spokesman for Anne Arundel schools, said no decisions have been made.

But the focus on logistics is frustrating for Heather Macintosh, spokeswoman for a national organization called Start School Later that's headquartered in Annapolis. "What is the priority?" she said. "It should be education, health and safety. All the other stuff may not be perfect — you may have to have your violin lesson before school or install lights on your field (for sports) — but it will work itself out."

Megan Kuhfeld, a graduate student at the University of California-Los Angeles who's been studying late-start debates since she was an undergrad at Duke University in North Carolina, surveyed some 35 districts that switched to later starts and found most were glad they'd made the switch. Not only did students benefit, for the most part, but "the things people had feared — how transportation would be affected, how sports would be affected — became the new normal and people adjusted," she said.

But Kuhfeld knows firsthand the pros and cons of late-start high schools, having attended one in Chapel Hill, N.C. "I enjoyed waking up later than everyone in the area next to me where there were early start times," she said, but as a member of the tennis team, she had to miss sixth and seventh period classes to compete at other schools. In junior and senior year, that meant AP classes had to be made up. "It was hard to balance everything," she said. "I'd get home at 8 p.m. and hadn't had dinner yet."

Still, advocates say several studies show the benefits of late start schools outweigh the drawbacks. In 1996, high school start times in Edina, Minn., changed from 7:20 a.m. to 8:30 a.m. The change improved attendance, decreased tardiness and left kids more alert, better prepared and even less depressed and less likely to visit school nurses, according to studies led by Kyla Wahlstrom, director of the Center for Applied Research and Educational Improvement at the University of Minnesota. By the end of the first year, 92 percent of Edina parents also said they preferred the later start, Wahlstrom said.

Following Edina's lead, Minneapolis, with an urban, low-income population that was very different from Edina's affluent suburban kids, also decided to delay public high school start times, from 7:15 a.m. to 8:40 a.m. A five-year study there showed the new schedule "statistically improved graduation rates because kids who had been sleeping through their first hour were not short on credits," Wahlstrom said. "When kids were short on credits, they would say, 'I'm going to drop out of school.'" Today Minneapolis high schools start between 7:56 a.m. and 8:30 a.m., but none have gone back to 7:15 a.m.

The National Sleep Foundation says Wahlstrom's study of Minnesota schools demonstrates that "changing to later start times is beneficial." Other studies published in the Journal of Clinical Sleep Medicine suggest late school starts may even reduce teen driving accidents, presumably because kids are less drowsy. A study from 2007-2008 found "significantly" higher teen crash rates in Virginia Beach, Va., than in a similar district in nearby Chesapeake where classes started 75 to 80 minutes later. A similar study in the late 1990s found crash rates for teen drivers dropped 16.5 percent in a Kentucky district after high school openings went from 8 a.m. to 9 a.m.

Despite studies documenting good results for late starts, other concerns often carry the day. When a late start was proposed in Columbia, Mo., in the late 1990s, people understood the sleep issues, but "there were lots of other pragmatic concerns," recalled Harris Cooper, a school board member at the time. "No. 1 was after-school activities, especially athletics and whether or not it meant that student athletes would end up having to leave school earlier and miss academic work."

And since buses there ran double routes, elementary schools would have had to take the early opening shift. "Parents of the younger kids complained that in winter, it meant their 6-year-old would have to stand out in the dark and cold an hour earlier," said Cooper, who now teaches at Duke, where Kuhfeld was one of his students. "You don't think about these things as a school board member until you have a mother come up and say, 'I don't want my 6-year-old standing out in the dark in December.'" Parents also worried that first-graders eating breakfast before boarding the bus at 7 would be hungry for lunch by 10.

Yet often, young children are natural larks — up with the sun — while adolescents become more owl-like as puberty progresses. Groundbreaking studies done in sleep labs in the 1980s first documented teens' natural late-to-bed, late-to-rise sleep cycles, "and every study that's been done since finds the same thing," said Amy Wolfson, a sleep expert and psychology professor at College of the Holy Cross in Worcester, Mass.

Wahlstrom says research shows teens don't get sleepy until around 10:45 p.m., when their bodies begin to secrete melatonin, but once they fall asleep, they stay asleep for about nine hours and 15 minutes, waking at around 8 a.m. "It's a factor of human biology that studies have replicated in Brazil, Italy, Israel and Korea," Wahlstrom said. "All have found identical sleep-wake patterns in teenagers. It's a human phenomenon, not geared to any culture."

These inborn sleep cycles explain why students often slumped at their desks in Rodvien's 7:17 a.m. classes in Annapolis. "I don't think most people understand how big of an impact this has both on kids' behavior in class and also getting to class," she said. This fall, though, she won't have to deal with it. She's switching to a middle school, where "it's going to be drastically better. School starts at 8:45."