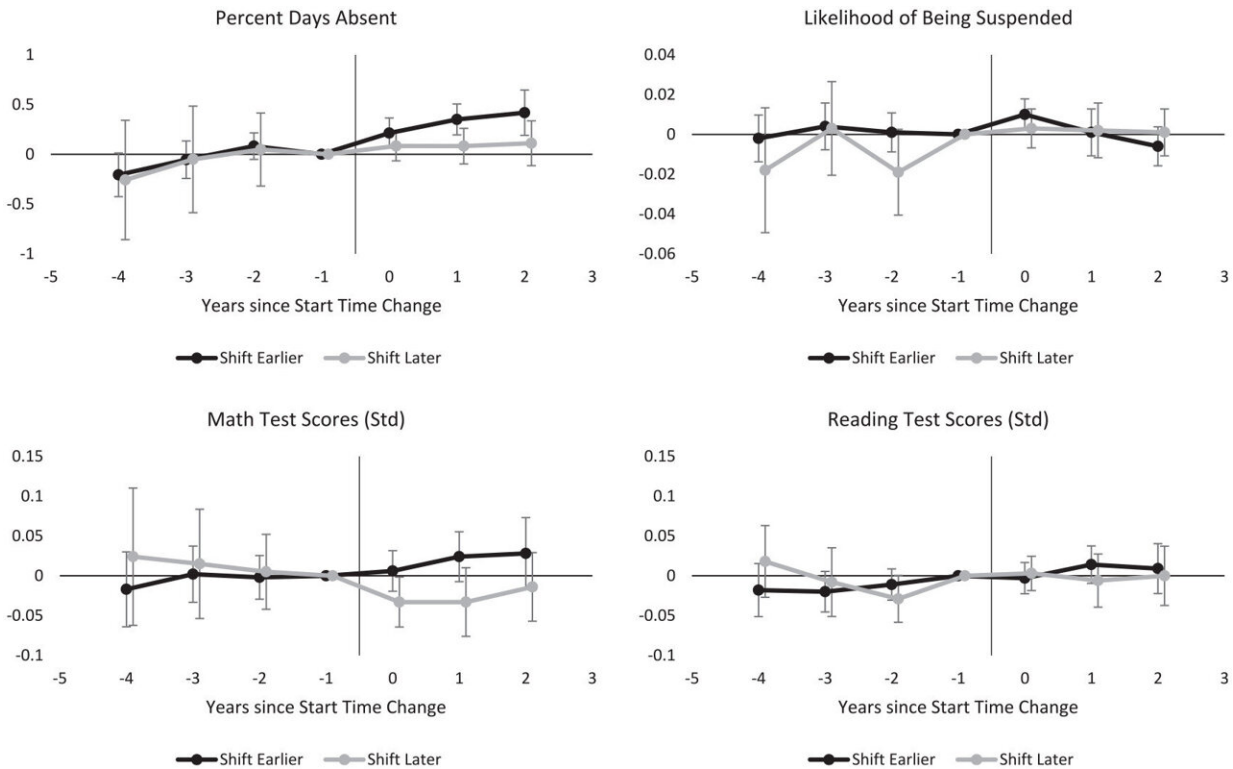


Research finds earlier start times have little effect on elementary school outcomes

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Statewide event study results (Grades 3–5). Note: These figures display results from statewide event study analyses examining trends in student engagement and achievement outcomes for elementary schools switching to an earlier start time and elementary schools switching to a later start time. Error bars represent the 95% confidence intervals around the estimated coefficient. Credit: *Educational Evaluation and Policy Analysis* (2022). DOI: 10.3102/01623737221121799

Earlier elementary school day start times predict less sleep for students but have little to no effect on their educational outcomes, according to new research published today in *Educational Evaluation and Policy Analysis*. For school districts that must stagger start times for transportation and other logistical reasons, the findings provide evidence that early start times are less detrimental to elementary school students than to students in high school or middle school.

This report on two studies is among the first to look at the impact of changing [school start times](#) on elementary students. Traditionally, research on school start times has focused on high schools and [middle schools](#), where the evidence supports later start times based on biological changes in adolescent sleep.

"We found earlier start times for elementary schoolers do not have the same negative effects as they do for middle and [high schoolers](#)," said co-author Sarah Crittenden Fuller, research associate professor in the Department of Public Policy and at the Education Policy Initiative at Carolina (EPIC) at the University of North Carolina. "For [elementary students](#), earlier start times predicted only a slight increase in absences and a small increase in math scores."

"As a number of districts and, notably, the state of California, adjust school start times to allow high schools and middle schools to start later, our findings offer reassurance that moving elementary schools to earlier start times is unlikely to harm the [educational outcomes](#) of the youngest students," said co-author Kevin C. Bastian, Director of EPIC and research associate professor in the Department of Public Policy.

One of the studies by Bastian and Fuller was broad in scope, covering all public, non-charter elementary schools in North Carolina from 2011–12 through 2016–17, and one focused on an urban district in North Carolina that changed its elementary and high school start times in 2016–17. In

each study, the authors examined the relationship between start times and student absences and suspensions as well as achievement on standardized exams.

Bastian and Fuller noted that there is some evidence in their study and other research that school start times have the largest impacts on traditionally disadvantaged groups and that those groups are most likely to be affected by the disruption of changing start times.

"To the extent that districts can change start times to bring middle and [high school](#) start times in line with the science on adolescent sleep, this may help close achievement gaps," said Fuller. "In addition, traditionally disadvantaged groups may benefit most from supports that schools and districts can provide to address disruptions in childcare and transportation created by a change in start times."

Should the emergence of a new COVID variant or another virus force schools to return to remote learning, the researchers noted that school leaders should carefully consider the best start times rather than simply defaulting to those established for in-person instruction.

More information: Kevin C. Bastian et al, Early Birds in Elementary School? School Start Times and Outcomes for Younger Students, *Educational Evaluation and Policy Analysis* (2022). [DOI: 10.3102/01623737221121799](#)

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