

INTRODUCTION

Project Background

In the following report, Hanover Research conducted in-depth interviews designed to explore how changes to school start times impact students and families. Hanover addressed the following research questions:



How have other districts implemented changes to school start times?



How do districts measure the impact of changing school start times?



What impact has changing school start times had on the district?

METHODOLOGY

In-Depth Interviews

In October 2017, Hanover reached out to 19 school districts across the United States that have experienced changes in school start times. Ultimately, Hanover collected data through in-depth interviews with district administrators from seven different districts.

In the interview, participants were asked about the decision-making process, implementation, and evaluation of changing school start times in their district. After completing these in-depth interviews, Hanover coded and analyzed the transcripts to draw out the most salient themes from the district administrators' experiences and opinions.

Unless otherwise noted, all information in this report was obtained through telephone interviews with these contacts. Please note all participants remain anonymous throughout the report; an overview of participants and year of implementation is provided in the Appendix.

Hanover offered interviewees a copy of the redacted report to encourage participation.





KEY FINDINGS

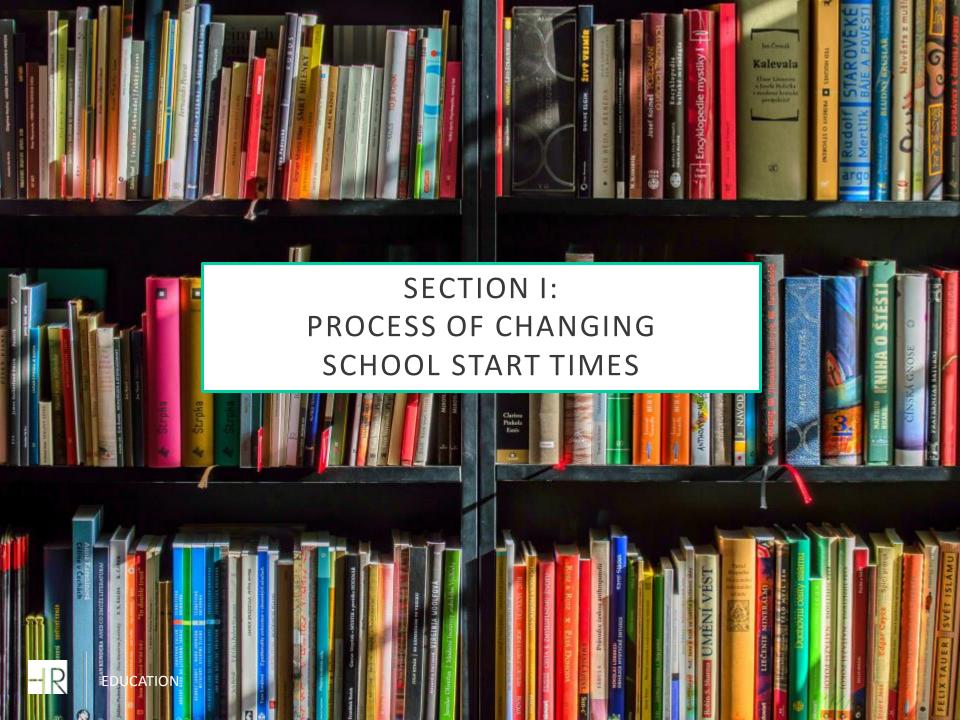
Aims, Impacts, and Challenges

- Student health and wellness is the most influential factor in choosing to delay high school start times. To support proposals for changes to school start times. many school districts use research on adolescent sleep patterns. Further, districts utilize sleep experts from local hospitals and research agencies to add legitimacy to the proposal. None of these districts made substantial changes to homework, grading, or testing practices in addition to changing school start times.
- Overall, interviewed districts find that delayed high school start times have resulted in more sleep for students and a more positive culture at each school. However, these impressions are mostly from anecdotal evidence and stakeholder feedback. Only a few districts have sophisticated methods of evaluation based on student data such as attendance records, graduation rates, behavioral data, and school climate surveys.
 - Of the two districts that conducted sleep studies of students before and after the change, one found that high school students slept an average 38 minutes more per night with the delayed school start time, and another found an increase of 45 minutes to an hour and 15 minutes of sleep per night.
- Parents are often most concerned with changes to school schedules being inconvenient to their own work schedules. To lessen this concern, some school districts allow early morning drop-offs in which school staff supervise children before school starts. However, administrators try to encourage student groups and clubs to meet after school to maintain the integrity of the delayed start in allowing students more time to sleep.

KEY FINDINGS

Implementation

- Transportation is the biggest logistical challenge in changing school start times due to the
 numerous details involved to reconfigure bus routes and establish efficient pick up times for
 students. Administrators have to consider students waiting for the bus or being dropped off in the
 dark as an additional challenge.
- Districts make efforts to limit the number of early dismissals for athletics by scheduling competitions that are further away for later times. However, districts find that some early dismissals for competitions with other districts are inevitable with delayed high school start times.
- It is important for districts to gather as much initial support and buy-in as possible prior to changing school start times. Participants find conducting a district-wide stakeholder survey to be essential in determining support for changes to school start times and establishing transparency in the process.
- Transparency is key during each phase of the process of changing school start times through conducting research, collecting stakeholder feedback, and implementation. Participants recommend that districts looking to change their school start times present the research as clearly as possible and commit the most time and energy to showing the benefits of delayed high school start times for students.



KEY PLAYERS

Stakeholder driven initiative

The charge to address later start times originated from different stakeholders in each district. These key players presented the problem as a legitimate issue and supported it with research. The following stakeholders brought attention to delayed start times through the use of online petitions, presentations to school boards, and through the creation of committees:

- League of Women Voters
- Students
- Parents
- High school committee
- Superintendent
- Principal

High level administrators, such as superintendents and deputy superintendents, took an active role in pushing for a change to start times. Most participants mentioned they were on the committee dedicated to addressing the possible adjustment and oversaw implementation efforts as well.

"In my role, in the charge by the superintendent, I started the process, did all the research, proposed the changes, sent that to the Board of Education for approval, and then was responsible for implementation. I saw this from initiative to implementation."

- Anonymous E



AIMS FOR SHIFTING START TIMES

Emphasis on student health and learning

District administrators mention student health and wellness as the main reason their district evaluated changing the school start times. Other motivating factors include a desire for improving academic achievement, student attendance, and graduation rates.

Highlighting the priorities in changing school start times, Anonymous E of District E did not invite members from the transportation department to discuss logistics until after larger details were decided upon. "I did not want anything to be derailed regarding logistics if we're truly talking about what's best for kids," he mentioned.

"What you hope ultimately is that it will increase academic achievement, I think that's the main thing."

"It was less an issue of academic achievement as readiness to be in school to learn, not feeling stressed getting to school that early.

That was really our focus, student health and wellness."

"Our main goal was to hopefully impact our graduation rate. We also wanted to increase student attendance and student academic performance."



"Our focus was really almost exclusively on student health and wellness. We made the decision right off the bat that since our review of the current research was all over the place in terms of the impact of a later school start time on academic achievement. Some studies that we read said it had a positive impact. Some studies that we read said that the impact was minimal if anything."

-Anonymous D
District D



RESEARCH-DRIVEN INITIATIVE

Support from medical research

Research on adolescent sleep patterns and healthy practices supported district evaluations of changing school start times. District administrators mentioned that the research was instrumental in convincing stakeholders about the necessity of pushing back high school start times.

While conducting initial research internally allowed participants to begin providing evidence to this need, district administrators mentioned that they brought in a variety of sleep experts and researchers to support their efforts.

These experts presented to students, parents, and staff about the benefits of proper sleep for adolescents. Some experts also aided the district in creating and administering surveys to students to document the current sleepiness of the student body and provide a standard benchmark before implementation of new start times.

"If you can gain consensus right away that the research is fairly self-explanatory, hard to argue, then you can spend time and effort talking about the logistics."

"The nay-sayers will tell you that these kids, if they can get up later, they're just going to sleep later. But research suggested that kids stayed up a little bit later but they still slept later so they were accumulating more sleep time during the week."

STAKEHOLDER INPUT

Importance of collecting feedback

Understanding where teachers, students, parents, and the community stand on changing start times is essential to the change management process. Several of the districts included in this study conducted surveys across each stakeholder group to gauge public opinion of the proposed shift. Districts also held focus groups and scheduled forums to hear from interested community members. Collecting input from each group allowed districts to determine their level of initial buy-in, as well as establish transparency in the process.

It is critical that districts clearly communicate the purpose of the survey; that is, to gather feedback on what to consider in changing school start times, not to make the decision by democratic vote. One district experienced some challenges when the majority of students responded that they did not support changing school start times, but the school board voted in favor of changing school start times.

"In the students' minds, it was a vote and it got voted down. But we had to work with them [to say] this was not a vote, this was feedback. The comments helped us make some adjustments [to the proposal]."

"We had a couple of larger like community input meetings whereby we laid out the options and took community input as to how most of the parents of our students felt about any of the options...But I will tell you that the vast majority of parents responding to those forms was overwhelmingly positive about what they felt would be the benefit of the extra sleep for their kids."

TRANSPARENCY

Keeping clear communication with stakeholders

District administrators stressed the importance of keeping stakeholders engaged in the process and fully informed by providing research and addressing questions. Methods of communication used by districts include:

- School committee agenda: The proposal was a regular item on committee meetings to allow feedback and discussion among attendees.
- **Community forums:** Districts created specific events to allow stakeholders to have time dedicated to discuss the proposal, voice concerns, and ask questions.
- Website dedicated to proposal: One district published the minutes from board subcommittee
 meetings to make the information available. Research about the importance of sleep was also posted
 online.
- **Email hotline:** One district had a special email account set up to allow community members to ask questions and provide comments. This administrator also made phone calls to parents to collect comments and concerns.
- **Press releases:** Districts sent out press releases to local newspapers to inform stakeholders. Newsletters were also sent home with students from school.

"My goal for the final recommendation is that people could not like the change in start times, but not a single person could question our process and our transparency. I felt that was important with the board that I didn't want them having to battle two issues, and so we put everything out to the community. We're fully transparent, didn't hide a single thing in the conversation. It truly became about the impact of start times."

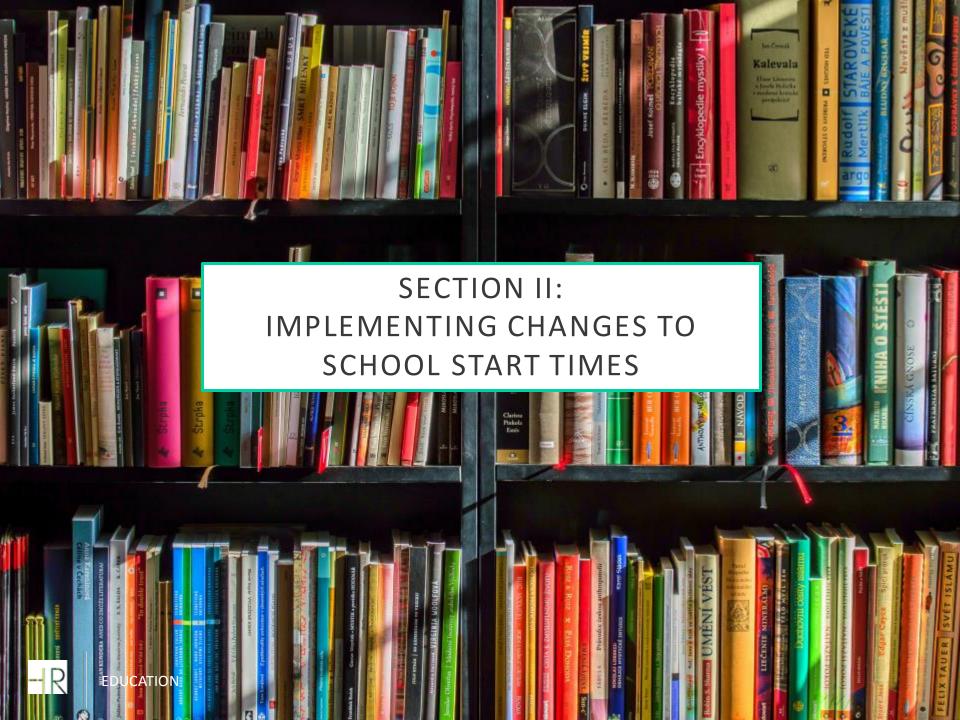
- Anonymous E, District E



"Then as we went through that process, I included and invited more people into our taskforce. I invited our union president, association representatives from each level of schooling-high school, middle school, elementary school-to the table to be a part of the discussions. I invited in some parents from the chairs of our major committees around the district to that conversation."

-Anonymous E,
District E





CHANGES TO START TIMES

Use of morning time

These districts pushed back their high school start times between 20 minutes to an hour and 10 minutes. A few districts mentioned that they could not shift start times as far much they would have liked to due to logistical constraints; instead, these districts altered their schedules by less than an hour and plan to reevaluate further shifts in the future.

Districts encourage students and teachers to limit their use of time before class starts in the morning, in order to get more sleep as intended by the change. Participants mention that they do not ban the use of this time, but instead ask that club meetings and tutoring take place after school.

However, a few districts have set up drop-off locations on site before class starts to accommodate parents' work schedules. While districts understand this is not an ideal situation, this arrangement is based on community feedback and parent needs.

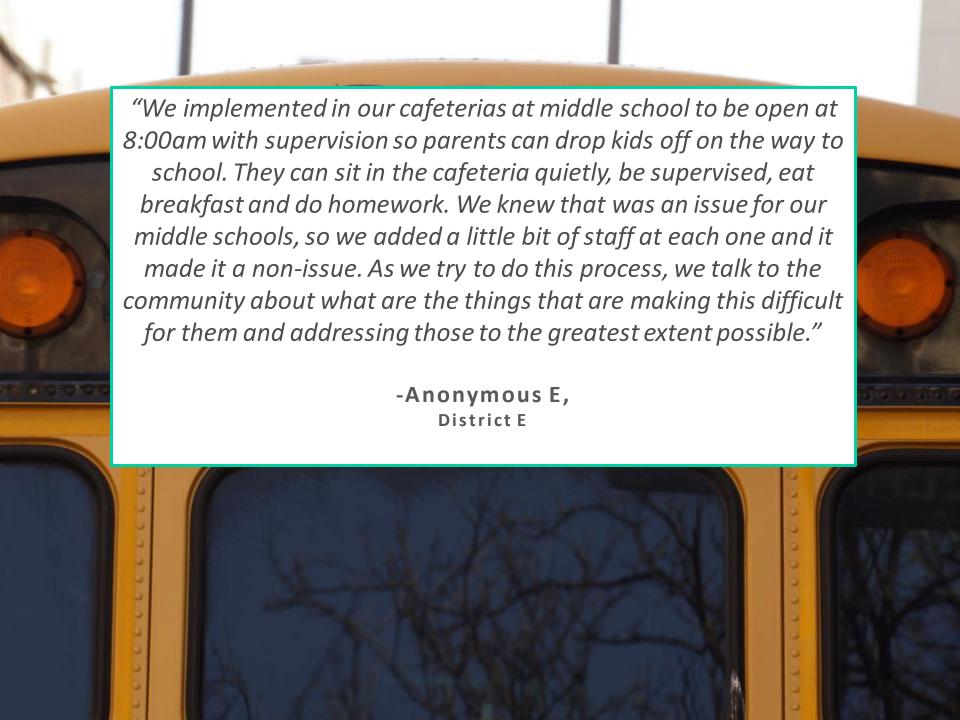
District Changes To High School Start Times

District	Before	After
District A	7:35am	8:20am
District B	8:00am	9:00am
District C	7:35am	8:00am
District D	7:30am	8:00am
District E	7:10am	8:20am
District F	7:40am	8:25am
District G	8:10am	8:30am

"I think there are times when kids actually meet before school, though we try to discourage it because we're trying to keep the time somewhat sacred."







TRANSPORTATION LOGISTICS

Re-evaluating bus routes

"Transportation certainly was the biggest challenge and it was the biggest concern that people had early on too. It looked good on paper, until you actually run it in real time."

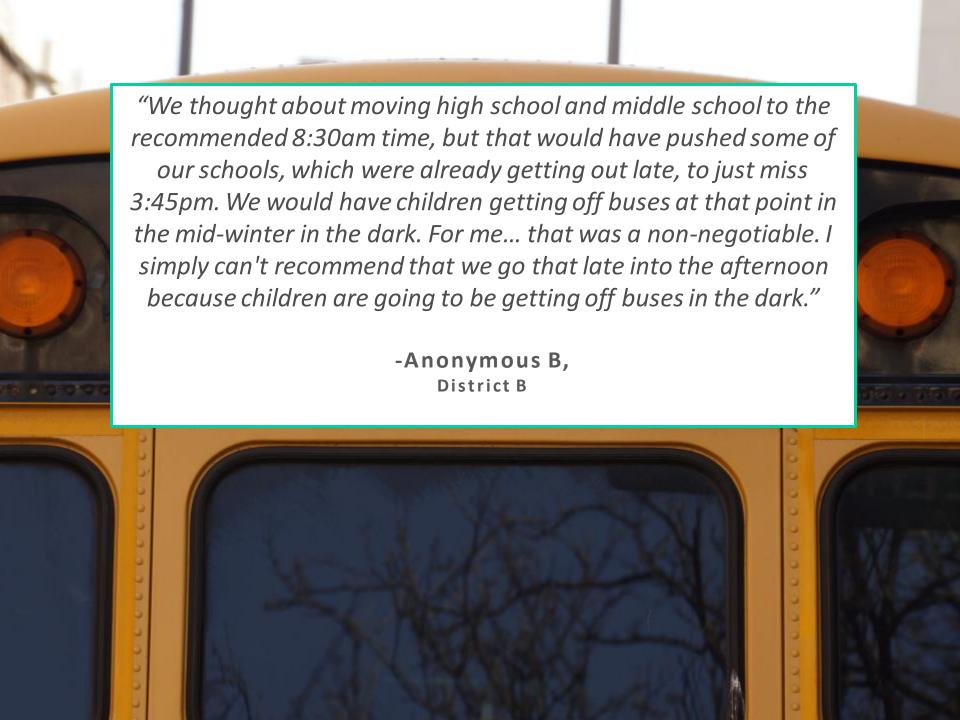
"We not only delayed the start time, we were able to grab some synergy from our transportation department and make those later pick-up times help."

"Our concerns about transportation turned out to be legitimate, so this year we made some changes in the construction of the afternoon bus routes for our elementary school kids and that seems to be working better."

"With the help of the city and the transportation council we made some changes to the traffic patterns in front of the building. We were able to change the flow so it wasn't quite as congested."

Transportation logistics are a central challenge of changing school start times. To work around the new schedule, districts reevaluated their current bus routes to shift pick-up times back, create fewer tiers for pick-ups, and alter the positioning of pick-up times by grade level. One district mentioned this reevaluation of their routes was an unexpected benefit to better streamline their current routes.

Safety considerations further complicate transportation details as administrators want to avoid having younger students in the dark either early in the morning or later in the afternoon. One district adjusted the original proposal for changing school start times due this concern over children being unsupervised in the dark.



AFTER-SCHOOL ACTIVITIES

Accommodating athletics and other activities

Participants report that the delay in school start times did not affect student schedules other than after-school activities. The change in school start times did not affect the amount of students participating in after-school activities and sports. Students, parents, and coaches have to adjust to a later start time for athletic events, but beyond that, administrators do not consider the delay to be disruptive. Early dismissals for games, competitions, and tournaments are an accepted disadvantage to the time shift, as administrators do not see a way around this. Districts try to schedule games that are further in distance later in the day, and earlier in the year before it gets dark to lessen early dismissals.

Outside activities such as dance lessons or jobs are harder for administrators to work around as they have no control over when these programs start. However, a few districts mentioned working with individual students to customize their school schedule to be flexible with external opportunities.

"We found out that when we were dismissing under the old schedule our kids were hanging around here for a half hour or so just basically killing time until the sports buses arrived. It's just the slack time back here that we cut out of the schedule."



"I think athletics was a big concern, everybody felt like the students wouldn't be able to get to their games on time. That was never an issue. We don't start our fall athletic events until at least 4:30pm."

"It has had no change in the number of students participating. We're having conversations with coaches around if they can accomplish what they need to in a slightly shorter amount of time so that students aren't out even later."

STAKEHOLDER PUSHBACK

Parent routines and logistics

The most prevalent complaint about the delayed start times came from parents who were accustomed to dropping their student off at school at a specific time before work.

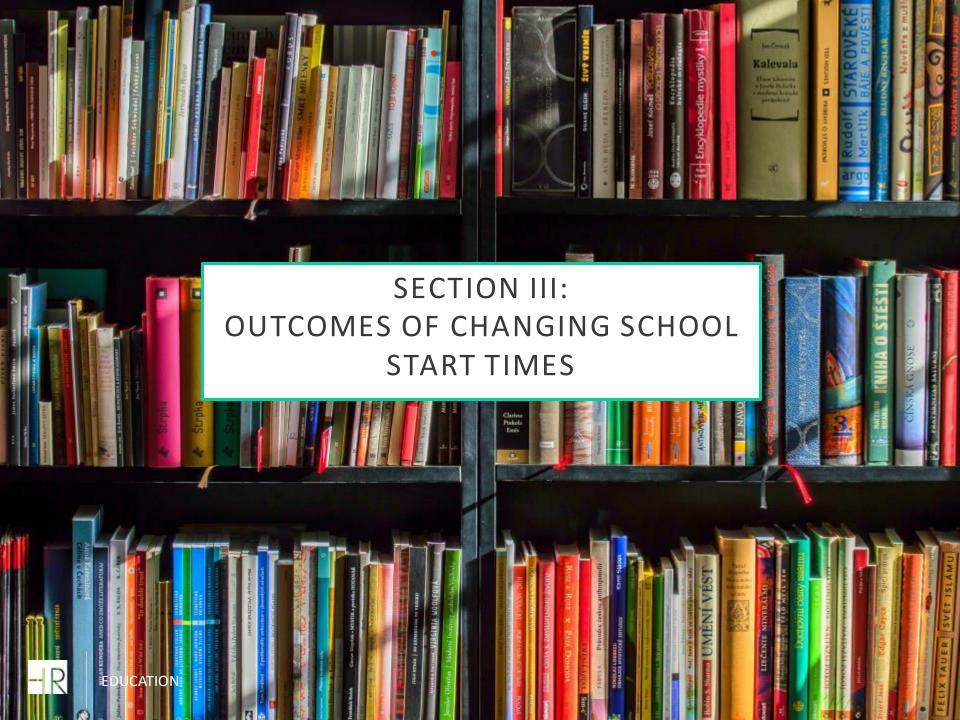
To mitigate these concerns, a few districts opened up a common supervised space for parents to drop their children off before class starts and communicated the change with local day care centers.

While administrators received strong opinions about the inconvenience of a schedule change, they emphasized the benefit of the shift to students' health and success as a higher priority than parents' comfort.

"I think the biggest concern that parents raised, those who raised concerns, was the potential impact on their workday...So we reworked our schedule and we made the time available to parents to drop their kids off early."

"Prior to it happening, a lot of people had all different kinds of concerns that they had worked up about what was going to be affected. A lot of it for adults was how it was going to affect their life as opposed to how is the benefit going to be for the students."

"Our biggest pushback was from elementary parents because we were moving them from 9 am start to 8:00am start, and a lot of parents felt that they just couldn't be up and ready by then. The reality of the situation is the kids are up and ready. It's getting them ready and getting them out the door to school and taking them to school that is more of the issue."



EVALUATION

Assessing the impacts of school start times

Districts evaluate the effects of school start time changes primarily through surveys. Many of these surveys use baseline information from before the changes to start times in order to assess how the change has affected students in regards to both student health and academic outcomes. One district also plans to compare the number of visits to the school nurse and guidance counselors from before and after the change as a measure of student well-being.

Health and Wellness Factors

- Alertness
- Sleepiness
- Time they go to bed/wake up
- Behavioral referrals

Academic Factors

- Attendance
- Tardiness
- Academic performance
- Graduation rate

However, most districts currently rely on anecdotal evidence as survey data is still being gathered or it is too soon after implementation to see a strong impact. Administrators share that teachers are seeing a vast improvement in their students with their level of engagement, excitement, and participation in class. Participants mention an overall more relaxed and "better social and emotional climate for kids" due to the additional time to get ready in the morning and additional time to sleep in.

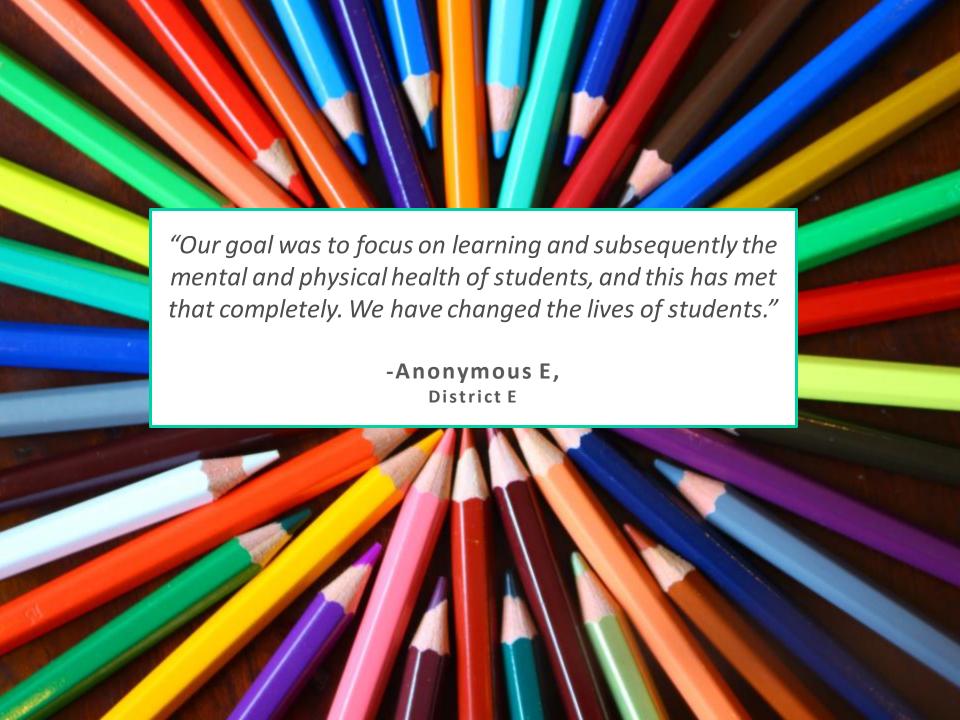
STUDENT OUTCOMES

Improvement to student health

Early evaluation results show that high school students are sleeping more due to the delay in school start time. One district concluded that students are getting an average of 38 minutes more sleep per night than previously, as established by a quantitative study conducted by an outside organization. Through student input at the same district, students self-reported that they were better rested, less irritable, and overall felt better.

Another district found that their students average 45 minutes to an hour and 15 minutes more sleep per night, depending on their bus pick-up time. The improvement in students' sleep schedules has positively affected not only the culture at each school, but individual student performance as well.

"We're seeing fewer kids needing to talk to their counselors for social or emotional issues. We're at least initially attributing some of that decrease to the fact that they're getting more sleep, it's less stressful at home before they're leaving for school, and it's less stressful when they get here for school." "It's better for kids. The increased sleep, there's less depression, less anxiety, less stress. They're more awake, more engaged and involved in their learning...I went out yesterday to one of our high schools and it's changed their lives. It's completely changed who they are and how they function, and how their life goes."



RECOMMENDATIONS

Advice for Other Districts

District administrators recommend including all stakeholders in the process from the initial proposal to implementation, as well as reiterating the purpose of changes to school start times to support student health and wellness, as evidenced by research.

It is also critical to get buy-in from teachers specifically as they have to adjust their schedules as well. One district found that teachers were still coming into school early to get work done, but working extended hours as the school day went later into the afternoon. Districts recommend supporting the teachers through professional development to help them with this shift.

"Certainly don't reinvent the wheel. There's a lot of research that's been out there that a lot of school districts have gone through the process of looking at the logistics...The research clearly speaks for itself."

"I would advise them to make sure that they involve all the stakeholders in the discussion and they have a very open process that ensures that people have been heard and really feel like their opinions have been valued."

"Every district is different, every school is different, cultures are different. A school really needs to consider their kids and their needs and their policies and their programs and decide if it's the right thing for their district. I strongly recommend to consider all of the variables and all the constituents involved."



APPENDIX

Participant Profiles

Name	Title	District	Implementation of Changed School Start Times
Anonymous A	-	District A	2003-2004
Anonymous B	-	District B	2016-2017
Anonymous C	-	District C	2017-2018
Anonymous D	-	District D	2016-2017
Anonymous E	-	District E	2017-2018
Anonymous F	-	District F	2011-2012
Anonymous G	-	District G	2012-2013

