



CENTER FOR
APPLIED RESEARCH AND
EDUCATIONAL IMPROVEMENT

Attendance and Chronic Absenteeism: Literature Review

October 2018

Prepared by:
Amber Humm Patnode, PhD
Kim Gibbons, PhD
Rebecca Edmunds, MA

Research, Development and Engagement to Improve Education

How to Cite this Report

Humm Patnode, A., Gibbons, K., & Edmunds, R. R. (2018). *Attendance and Chronic Absenteeism: Literature Review*. Saint Paul, MN: University of Minnesota, College of Education and Human Development, Center for Applied Research and Educational Improvement.

Contact Information

Amber Humm Patnode, Associate Director of Innovation and Outreach
Center for Applied Research and Educational Improvement
College of Education and Human Development
University of Minnesota
1954 Buford Avenue, Suite 425
Saint Paul, MN 55108
Telephone: 612-626-1191
Email: ahummpat@umn.edu
www.cehd.umn.edu/CAREI/

Table of Contents

Introduction	1
Defining Chronic Absenteeism	2
<i>Prevalence Rates for Student Subgroups</i>	3
<i>Prevalence Rates by Grade Level</i>	4
Associated Outcomes.....	6
Root Causes	7
<i>Barriers</i>	7
<i>Aversion</i>	10
<i>Disengagement</i>	12
Prevention and Intervention.....	13
<i>Prevention</i>	14
<i>Intervention</i>	17
Health	17
Transportation	20
Family – School Connections	21
Student – School Connections	23
Other	29
Conclusion	31
References	32



CENTER FOR
APPLIED RESEARCH AND
EDUCATIONAL IMPROVEMENT

Attendance and Chronic Absenteeism Literature Review

Introduction

A basic assumption of the education system is that students regularly attend school. Students must be present and engaged to learn. However, recent research has called this assumption into question (Chang, Bauer, & Byrnes, 2018). While there has been a long history of examining certain types of absences or truancy, chronic absenteeism in schools was not consistently measured until recently (U.S. Department of Education, 2016a). The reauthorization of federal education law with the Every Student Succeeds Act (ESSA) in 2015 prompted state level focus on student attendance as a robust metric of school quality/student success (SQSS; Jordan & Miller, 2017). In addition, ESSA requires states to report how many students are chronically absent on their school report card. During the 2015-2016 school year, the most recent national data available, the U.S. Department of Education Civil Rights Data Collection (CRDC) found that nearly 8 million students were chronically absent, defined as missing 15 or more school days during the year (Chang, Bauer, & Byrnes, 2018).

Chronic absenteeism significantly impacts a variety of student outcomes including mathematics and reading achievement, social-emotional development, grade retention and dropout, and student discipline (e.g. Balfanz & Byrnes, 2018; Gottfried, 2017). Chronic absenteeism is associated with risky behaviors such as substance use (e.g. Henry & Huizinga, 2007; Kearney, 2008). Students with excessive absenteeism are also at increased risk for school dropout which is further associated with economic, social, and health problems in adulthood (e.g. Cutler & Lleras-Muney, 2006; Jordan & Miller, 2017; Kearney, 2008; Sheldon & Epstein, 2004). In addition to the individual effects of absenteeism, research has found that classrooms

with high rates of absenteeism have spillover effects with lower test scores observed for all students in the classroom, even the students with good attendance (Gottfried, 2015b).

The root causes of chronic absenteeism are often multifaceted and unique to each student, but adequately addressing absenteeism requires an understanding of these causes (Chang et al., 2018). Root causes can be categorized as *barriers*, *aversion*, and *disengagement* reasons based on the level at which they impact the student's attendance. *Barriers* such as health problems suffered by the student or family members, transportation, housing instability, and suspension all prevent the student from attending school (e.g. Chang et al., 2018; Hofferth, Reid, & Mott, 2001; Kearney, 2008). In contrast, factors which fall in the *aversion* category cause students to feel unsafe or unwelcome at school (e.g. Balfanz & Byrnes, 2012; Chang et al., 2018). Finally, with *disengagement*, students miss school due to factors related to a lack of perceived value or motivation for attending (e.g. Chang et al., 2018; Sheldon & Epstein, 2004). By identifying the underlying causes of chronic absenteeism, schools can be more effective and efficient in providing resources and services which will improve the attendance for individual students.

Defining Chronic Absenteeism

Many states and reporting agencies are now defining *chronic absenteeism* as missing 10% or more school days for any reason (U.S. Departments of Education, Health and Human Services, Housing and Urban Development, and Justice, 2015). Absenteeism refers to missed instructional days that are excused, unexcused, or the result of disciplinary removal from school (Jordan & Miller, 2017). Under ESSA (2015) guidelines, states are allowed to set their own criteria for chronic absenteeism. In Minnesota, the Minnesota Department of Education (MDE) has identified *consistent attendance* as a school quality indicator within the ESSA plan which is defined as attending more than 90% of school days (MDE, 2018a).

For both chronic absenteeism and consistent attendance, all absences: excused, unexcused, and suspensions are counted. In Minnesota, state statute identifies legitimate exemptions from school. These excused absences are a critical difference between *chronic absenteeism* and *truancy* as time missed for legitimate absence is not included in truancy counts. However, excused absences are counted for calculations of chronic absenteeism.

Chronic absenteeism focuses on the impact of missing school on students' academic and social development; truancy focuses on legal compliance (Chang et al., 2018). The shift from truancy to chronic absenteeism is crucial because high rates of absenteeism, even when excused, are associated with negative academic outcomes (e.g. Chang et al., 2018; Cortiella, & Boundy, 2018).

Prevalence Rates for Student Subgroups

The most recent nationwide data on absenteeism was collected for the 2015-2016 school year and found that nearly 8 million students (16%) were chronically absent, defined as missing 15 days of school (Chang et al., 2018). Since MDE began gathering data on chronic absenteeism in 2011, consistently 12-13% of students in grades 1-12 have been absent for more than 10% of school days (MDE, 2018b).

Disparities in absenteeism rates are observed by racial and ethnic background, income, and special education status. As demonstrated in *Figure 1*, nationally, 20% or more of Black, Hispanic, and American Indian students experience chronic absenteeism in comparison to only 8% of Asian students (The Hamilton Project, 2018). In addition, 20% of students with disabilities experienced chronic absenteeism (The Hamilton Project, 2018). English language learners are less likely to be absent than their peers and no significant differences were found by gender (U.S. Department of Education, 2016a).

Similar patterns are identified in Minnesota (*Figure 1*). In 2016, 38% of American Indian/Alaska Native, 19% of Black, 16% of Hispanic, and 16% of students identifying two or more races experienced chronic absenteeism as compared to only 7% of Asian students (MDE, 2018b). Within each racial or ethnic category, rates of chronic absenteeism were consistent across years. The largest change occurred for American Indian/Alaskan Native students with rates of chronic absenteeism steadily rising from 34% in 2011 to 38% in 2016. By income, 20% of Minnesota students with a family income in the range of 0-185% of the federal poverty line experienced chronic absenteeism as compared to 8% of students with higher family income (MDE, 2018b). In 2016, 20% of students receiving special education services were chronically absent, in comparison to 11% of students not receiving special education (MDE, 2018b). Differences were not found between English learners and non-English learners.

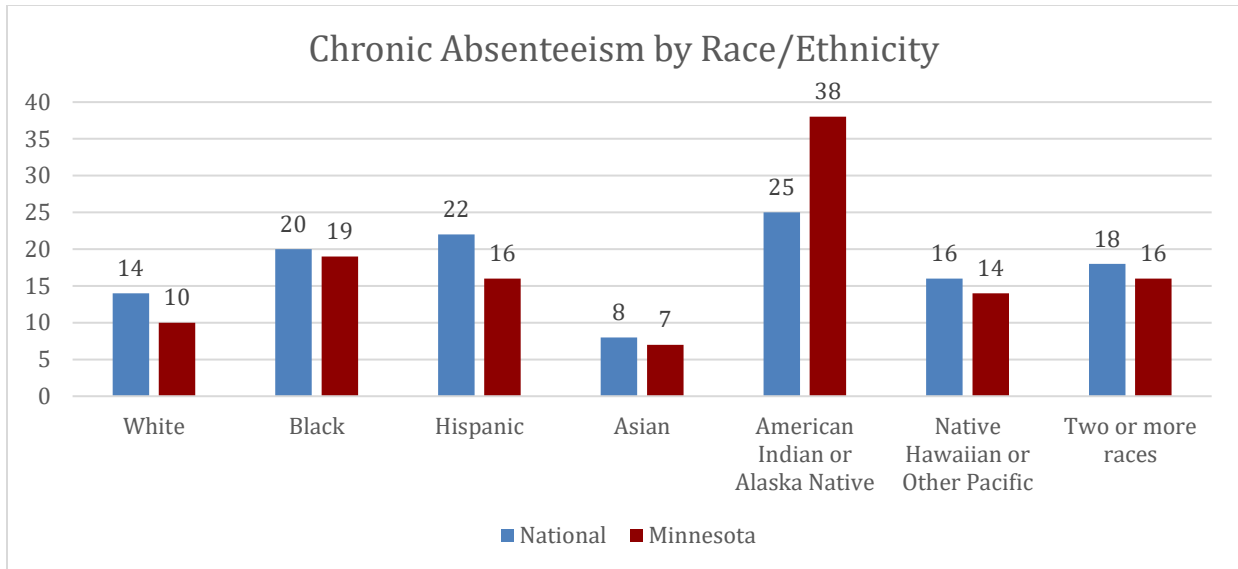


Figure 1: Rates of chronic absenteeism nationally and in Minnesota. National data reflects the percent of students missing 15 or more days in the 2015-2016 school year. Minnesota data reflects the percent of students absent 10% or more days in 2016.

Analyses of national data sets have found that chronic absenteeism is similar across genders and in both urban and rural schools (Balfanz & Byrnes, 2012). However, the economic status of the community is related to rates of absenteeism. Schools in which a majority of students (75% or more) live in poverty are more likely to experience high levels of chronic absenteeism (Chang et al., 2018). Chronic absenteeism is clearly a national issue that cuts across urbanicity and demographic groups.

Prevalence Rates by Grade Level

For the 2015-16 school year, the CRDC data indicates chronically absent rates increase as students progress through school with elementary, middle, and high school students absent at rates of 13%, 14%, and 21% respectively (The Hamilton Project, 2018). This pattern, with spikes of chronic absenteeism observed in high school, was consistent across racial and ethnic categories. Data from Minnesota in 2016, also showed lower absenteeism rates in grades 1-6 (6-8%) with the lowest rates of chronic absenteeism in third and fourth grades (*Figure 2*). Then absenteeism increases from seventh grade (10%) through high school. Chronic absenteeism rates spiked for students in grade 11 (20%) and grade 12 (28%).

While Minnesota does not report attendance rates for students in pre-kindergarten (pre-k) programs, national data sets have identified particularly high rates of chronic absenteeism in pre-k ranging from 20-45% of students (e.g. Connolly & Olson, 2012; Dubay & Holla, 2016; Ehrlich, Gwynne, & Allensworth, 2018). Patterns of attendance by grade were similar across racial and ethnic groups in Minnesota and nationally. However, in Minnesota, American Indian and Black students had higher rates of chronically absenteeism in grade 1 than in grades 2-5. This same trend was not observed with for students in other racial/ethnic groups (MDE, 2018b).

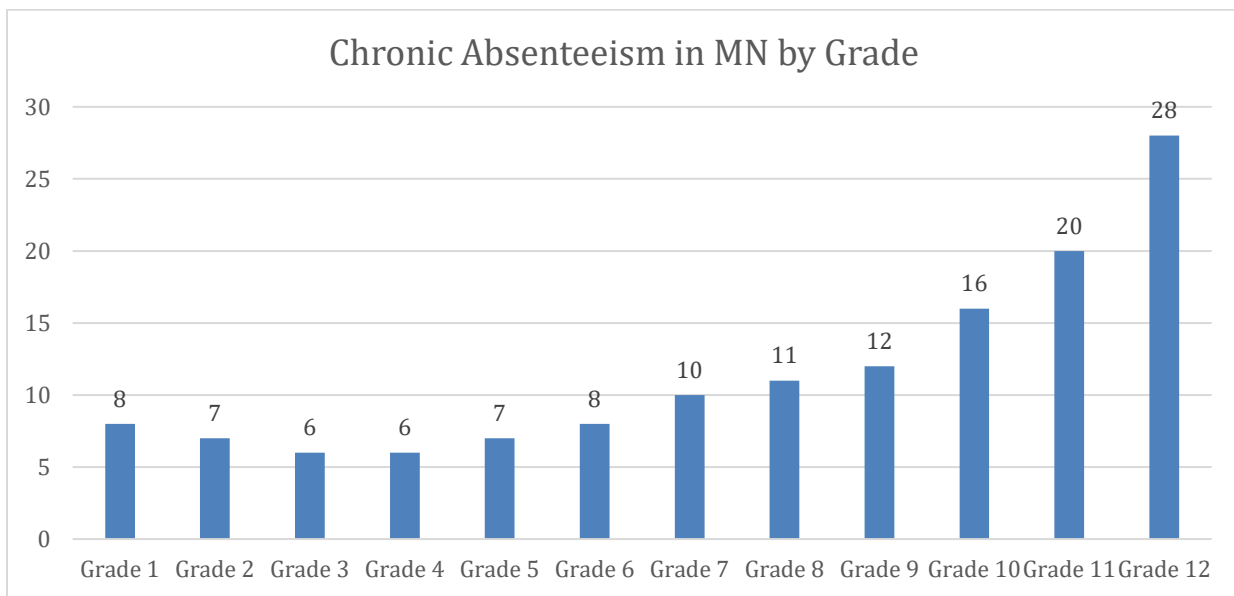


Figure 2: Rates of chronic absenteeism in Minnesota by grade. Minnesota data reflects the percent of students absent 10% or more days in 2016.

Distinct patterns emerge from local and national data with high rates of absenteeism in pre-k and kindergarten, stabilization in late elementary school, and then increasing rates through middle school and high school (Bauer, Liu, Schanzenbach, & Shambaugh, 2018; MDE, 2018b). These trends imply that families have an adjustment period in early elementary school, especially kindergarten, in which students are more frequently absent. After that initial adjustment, attendance appears to improve through elementary school until new factors are introduced which increase absenteeism in later grades (Balfanz & Byrnes, 2012). Additional

adjustment periods are evident at the transitions to middle school and high school as both are associated with increased absenteeism (e.g. Balfanz, Herzog, & Mac Iver, 2007).

Associated Outcomes

Chronic absenteeism has been linked to multiple negative academic and social outcomes (Balfanz & Byrnes, 2018). Poor attendance is one of the best predictors of later school drop-out. Recent research indicates that chronic absenteeism is a better predictor of drop-out than low grades or test scores (Gottfried, 2014). Ninth grade attendance predicted high school graduation in Chicago with a 90% success rate, and students with extreme chronic absenteeism in high school (missing one month or more of school per semester) were found to have less than a 10% chance of graduating (Allensworth & Easton, 2007).

The impacts of chronic absenteeism start even before high school. Chronic absenteeism in kindergarten has been linked to lower academic and social-emotional outcomes in the same year (Gottfried, 2015b). Additionally, one longitudinal study found that only 17% of children chronically absent in kindergarten and first grade achieved reading proficiency by the end of third grade (Applied Survey Research, 2011). Research on upper elementary grades indicate that students who were chronically absent in fourth through sixth grades are less likely to graduate (Smerillo, Reynolds, Temple, & Ou, 2018). In addition, falling behind academically in early grades is also a predictor of dropping out of high school. For example, students who are proficient readers at the end of third grade are four times more likely to graduate high school than students who have not achieved proficiency (Hernandez, 2012). Lower rates of attendance are also associated with higher rates of grade retention, disengagement, and alienation in school (Gottfried, 2014). Lifelong consequences have been identified with frequent absenteeism linked to substance use, future unemployment, and a variety of health related issues (e.g. Alexander, Entwisle, & Horsey, 1997; Connolly & Olson, 2012; Cutler & Lleras-Muney, 2006).

Especially concerning are indications that the negative effects of absenteeism are compounded for students from low socioeconomic (SES) backgrounds (Gottfried, 2014). This may be because these students face additional barriers that prevent them from accessing the extra services needed to compensate for the lost school time (Gottfried, 2014). In this way,

absenteeism may both have root causes associated with poverty and contribute to academic and social outcomes which lead to lower economic opportunity in the future.

Poor attendance also has negative impacts on the learning environment within the school (Balfanz & Byrnes, 2018). When students miss instructional time due to absences, remediation is required when they return. Additionally, students who are frequently absent report alienation from their peers and teachers and demonstrate more social disengagement (Gottfried, 2015b). Indeed, if a classroom has a high proportion of chronically absent students, lower reading and math scores are observed even for the students with good attendance (Gottfried, 2015).

Root Causes

Chronic absenteeism may involve any combination of child-, family-, peer-, school-, and community-based factors (Kearney, 2008). Understanding which factors are contributing to student absences can facilitate the identification and implementation of the appropriate supports and intervention strategies (Chang et al., 2018). Three categories are used to address the manner in which these factors impact attendance: *barriers*, *aversion*, and *disengagement*.

Barriers

Barriers consist of factors which prevent a student from attending school and include health conditions, inconsistent or unreliable transportation, suspension, housing instability, and involvement with child welfare or the juvenile justice system (e.g. Chang et al., 2018; Hofferth et al., 2001; Kearney, 2008; Zhang, 2003). Students may face one or more barriers to attendance and some, such as housing instability and transportation, may be closely related.

Physical health. Multiple surveys of chronically absent students have identified health concerns including short-term illness, chronic illness, and medical/dental/mental health appointments as the most frequently cited reason for missing school (e.g. Erbstein, Olagundoye, & Hartzog, 2015; Humm Brundage, Castillo & Batsche, 2017). These self-reports are supported by research that physical, mental, and social health are directly related to school attendance (e.g. Cutler & Lleras-Muney, 2006; Robert Wood Johnson Foundation, 2016).

Any teacher can attest that annual colds, flu, and other common childhood ailments contribute to absenteeism. While these short-term, contagious illnesses are a common causes

of overall absences (Wiseman & Dawson, 2015), they are not a primary cause of chronic absenteeism (Balfanz & Byrnes, 2012). Students with chronic health concerns, such as asthma, miss more school than their peers (e.g. Kearney, 2008; National Collaborative on Education and Health, 2015; Silverstein, Mair, Katusic, Wollan, O’Connell, & Yunginger, 2001; Taras & Potts-Datem, 2005). Chronic illness can impact attendance in multiple ways. For example, symptoms, doctor visits, hospitalization, sleep deprivation, and susceptibility to other illnesses are all consequences of asthma that have been linked to absenteeism (Basch, 2011). Similarly, diabetes, obesity, seizure disorders, and vision problems contribute to absenteeism (National Collaborative on Education and Health, 2015; Pan, Sherry, Park, & Blanck, 2013).

Oral health also contributes to absenteeism, with children suffering from poor oral health or tooth decay absent nearly three times more than their peers (Attendance Works, 2015). One study found that 36% of students who had access to regular dental care missed two or more days due to dental problems. In contrast, 73% of students without access to regular dental care missed the same amount of school (Pourat & Nicholson, 2009).

Family health can also be an attendance barrier. Specifically, children with parents who report depressive symptoms are more likely to be absent (Guevara et al., 2012). Children in households with adults who smoked or used other substances were also more likely to miss school than their peers (Levy, Winickoff, & Rigotti, 2011; Stempel, Cox-Martin, Bronsert, Dickinson, & Allison, 2017). In a study of adverse childhood experiences, exposure to neighborhood violence and family substance abuse had the largest effects on the risk for chronic absenteeism, even after controlling for other contributing factors such as a health care condition or low socioeconomic status (Stempel et al., 2017).

Transportation. Another significant barrier to attendance is transportation (e.g. Erbstein et al., 2015; Humm Brundage et al., 2017). The National Center for Safe Routes to School (2016) has been surveying parents about their transportation practices for a decade. In that time, car and bus remained the two most common forms of transportation to school. When students are unable to access these forms of transportation they may be unable to attend school. Students self-reported that common transportation barriers included missing the bus or having car problems (Humm Brundage et al., 2017). Transportation is especially concerning for students

who live more than two miles from school (National Center for Safe Routes to School, 2016). The percentage of students walking to school increased slightly from 12-15% from 2007 to 2014, however, for some students the safety of the community may be a barrier to walking (Gottfried, 2017; National Center for Safe Routes to School, 2016; Stempel et al., 2017). Witnessing or experiencing neighborhood violence has been shown to predict chronic absenteeism (Stempel et al., 2017). If students, especially in elementary school, cannot walk to school because the neighborhood is unsafe or they live too far away, their attendance becomes dependent on others. Therefore, transportation problems become barriers preventing students from accessing their education.

Housing instability. Housing instability often contributes to transportation barriers, but it also contributes directly to absenteeism. Homelessness or any type of temporary housing dislocation may cause students to miss school as the family focuses on establishing new housing (Balfanz & Byrnes, 2012). Chronic absenteeism among students who were homeless was almost twice the rate of low-income students with stable housing (da Costa Nunez, Erb-Downward, & Shaw-Amoah, 2015). Another indicator of instability, the number of school transfers in a year, is also related to more absenteeism even among students that have access to housing (da Costa Nunez et al., 2015).

Adult responsibilities. Adolescent children may experience a barrier to attendance if they are expected to take on adult responsibilities in contributing to the household. Some families expect adolescent children to take on caregiver roles for young children or elder-care. Other adolescents may have to work in a family business or to contribute income for household expenses (Balfanz & Byrnes, 2012). When faced with these familial expectations, students may not be able to attend school.

Suspension. Both in-school suspension and out of school suspensions are related to lower attendance rates and eventual school drop-out (Balfanz, Byrnes, & Fox, 2014; Cholewa, Hull, Babcock, & Smith, 2018). These relationships are found to exist even when student characteristics such as demographic variables and attitude toward school were controlled (Lee, Cornell, Gregory, & Fan, 2011). A large study of over 8,000 ninth grade students across 31 states, found that detention, in-school suspension (ISS), Saturday school, and out-of-school

suspension (OSS) were the most common disciplinary responses to unexcused absences (Flannery, Frank, & Kato, 2012). Proactive disciplinary practices such as student conferences or restitution interventions were rarely used (Flannery et al., 2012). This study also found that repeated OSS led to a strong and significant increase in truancy over time (Flannery et al., 2012).

Involvement with child welfare or the juvenile justice system. Students in foster care have a higher rate of absenteeism than their peers. One study showed that approximately one in four students in foster care experienced chronic absenteeism (California Department of Education, 2017). Additionally, involvement in the juvenile justice system is related to absenteeism and school drop-out. Some studies have proposed the negative effects are related to increased retention, lower academic achievement, or stigmatization from peers and school staff (Hirschfield, 2004; Hjalmarsson, 2008).

Aversion

Aversions are factors which impact attendance because the student feels they are unsafe or do not belong at school. These factors include school climate and student academic performance (e.g. Balfanz & Byrnes, 2012; Black, Seder, & Kekahio, 2014; Chang et al., 2018). Unlike barriers, these root causes do not physically prevent students from attending school. However, these factors cause students to actively avoid it because they feel unsafe or unwelcome (Balfanz & Byrnes, 2012).

Mental health. In addition to physical health, mental health concerns including school refusal, separation anxiety, and depression can impact student attendance (e.g. Egger, Costello, & Angold, 2003; Kearney, 2008). School refusal refers to difficulty attending school related to fear or anxiety of school caused by the separation from parents, fear of specific school-related experiences, general anxiety, or depression (Egger et al., 2003). In addition to anxiety and depression related symptoms (e.g. separation fears, sleep difficulties, somatic complaints), students with school refusal reported that they felt the school was unsafe, they were being bullied, and had difficulty making friends (Egger et al., 2003). Common symptoms of anxiety and school refusal, especially with young children, include somatic complaints such as headaches and stomachaches. These may contribute to absenteeism if parents are not aware of

these symptoms (Kearney, 2008). Although the direct causal link has not been established, it is important to note that students with attention-deficit hyperactivity disorder (ADHD) have an increased risk for chronic absenteeism (e.g. Barbaresi, Katusic, Colligan, Weaver, & Jacobsen, 2007; Guevara, Mandell, Danagouliau, Reyner, & Pati, 2012). The difference in attendance rates between students with ADHD and their peers is apparent in elementary school and widens as students progress into high school (Barbaresi et al., 2007).

School climate. Overall ratings of school climate are negatively related to absenteeism. Students have higher rates of attendance in schools with better (a) physical environments including proper ventilation, lighting, and temperature control; (b) emotional environments including feelings of belonging and positive peer relationships; and (c) organizational leadership including access to adequate resources and a friendly and approachable staff (e.g. Bevans, Bradshaw, Miech, & Leaf, 2007; Christenson, Sinclair, Lehr, & Godber, 2001; Schneider, 2008). Specifically, students who experience or participate in bullying are more likely to be excessively absent from school (Gastic, 2008). A longitudinal study examined the complex relationships between bullying (self-reports of bullying other students), academic achievement, and behavior in middle school as predictors of future attendance and academic performance and found that bullying had an indirect relationship with attendance (Feldman et al., 2014). Students who reporting bullying had decreasing academic performance and increasing behavior issues over time, which then led to lower attendance rates (Feldman et al., 2014).

Academic performance. Low academic performance is a predictor of future absenteeism (Feldman et al., 2014; Janosz, Le Blanc, Boulerice, & Tremblay, 2000). Multiple early indicators have been identified for high rates of absenteeism and eventual school dropout including course failure in middle school and grade retention or low academic performance as early as first grade (e.g. Alexander et al., 1997; Jimerson, Egeland, Sroufe, & Carlson, 2000; Jimerson, Anderson, & Whipple, 2002; Neild & Balfanz, 2006).

Special consideration: Students receiving special education services. While the previous root causes of aversion are applicable across student demographics, students receiving special education services have higher rates of absenteeism than their peers. While health concerns may contribute to the lower attendance rates, especially for students with physical disabilities,

other aversions including bullying and higher rates of suspension have been shown to have a disproportionate impact on the attendance of this population (Attendance Works, 2015).

Disengagement

Finally, *disengagement* includes factors which influence the student's desire to attend school such as a lack of engagement in courses or extracurricular activities, association with chronically absent peers, student perceptions of the classroom environment, and their relationship with teachers, (e.g. Black et al., 2014; Chang et al., 2018; Farmer et al., 2003; Sheldon & Epstein, 2004).

Student-school connectedness. Students who lack connections in the school may disengage. A study in Chicago Public Schools found differences in student attendance rates by school, even after controlling for student and school demographic factors (Allensworth & Easton, 2007). The researchers controlled for many of the root causes discussed previously by controlling for student backgrounds, prior achievement, and the composition of students served by the school. They found that high school students in low engagement schools were absent almost a full week more per semester than similar students in high engagement schools. These students were missing an additional two weeks per year due to school-level factors (Allensworth & Easton, 2007). Additionally, students who are not engaged in school may choose not to attend in order to pursue preferred activities outside of school (Humm Brundage et al., 2017). Therefore, students may experience feeling both pushed out of school by low engagement and pulled away by preferred activities.

Allensworth and Easton (2007) identified three specific school-level engagement factors. Two were related to the teacher-student relationship: (a) the level of reported trust between teachers and students and (b) the extent to which students reported that they received personal support from their teachers. The third factor was the extent to which students perceived that school staff emphasized success in high school as relevant and important for the future of all students and not only for the top achievers in the school (Allensworth & Easton, 2007). Similarly, research in Florida identified that students are more likely to disengage when they perceive school to be boring, do not see value in attending, and do not believe that school will help them achieve their goals (Humm Brundage et al., 2017).

Family-school connectedness. When families do not have strong connections with the school or do not emphasize the value of school, students are more likely to be absent (e.g. Guare & Cooper, 2003; Henderson & Mapp, 2002). Many families may not realize that all absences, even excused absences, can negatively impact students' academic performance (Gottfried, 2015b). Additionally, most parents underestimate their child's absenteeism (Rogers & Feller, 2018). Multiple studies have found that improving the communication between schools and families to address these misconceptions increased student attendance (e.g. Epstein & Sheldon, 2002; Henderson & Mapp, 2002). Parental behaviors which demonstrate a positive connection to the school, such as asking their children about school and volunteering at school, are also associated with higher rates of attendance (Sheldon & Epstein, 2004).

Substance use. Substance use including with alcohol, tobacco, and other drugs are linked to absenteeism (Engberg & Morral, 2006; Humm Brundage et al., 2017). This is a bidirectional relationship with substance-use a predictor of future truancy and low attendance a predictor of substance-abuse (Flaherty, Sutphen, & Ely, 2012). The timing of substance use is also important, as research has found the effect on attendance is more profound the earlier a student begins using alcohol or marijuana (Engberg & Morral, 2006).

Negative peer influence. One longitudinal study found that students who were rated by their peers as more popular and more likely to be aggressive were also more likely to have poor attendance (Schwartz, Gorman, Nakamoto, & McKay, 2006; Farmer et al., 2003). Students' self-reported involvement with peers who displayed delinquent behaviors has been shown to be strongly associated with higher levels of absenteeism (Henry & Huizinga, 2007).

Prevention and Intervention

Research is beginning to emerge regarding what works to address chronic absenteeism. The overarching recommendation is to develop a culture focused on attendance. This requires a multifaceted approach and can be framed as tiered systems of supports aligned with MTSS/RtI, including universal prevention, early intervention, and specialized supports (e.g. Chang et al., 2018; Kearney & Graczyk, 2013). The interventions addressed below provide more specific recommendations and resources. Many resources are also available through Attendance Works, a national initiative to provide education and resources to address chronic

absenteeism. These resources are available at <https://www.attendanceworks.org/chronic-absence/addressing-chronic-absence/>.

Prevention

Prevention efforts establish a culture which emphasizes the importance of attendance through a welcoming school environment, building relationships with families, monitoring and messaging attendance rates to families, recognizing good and improved attendance, and educating families and staff on the impact of absences (Chang et al., 2018). Schools can also address specific barriers with preventative efforts. For example, providing free school breakfast, expanding after-school programs, or adding school-based health services can remove barriers to attendance and benefit all students, even those with good attendance (Attendance Works & Everyone Graduates Center, 2016).

Tracking attendance and reviewing that data regularly is an essential component of any prevention effort. If schools rely on truancy data, students with poor attendance will be facing the academic impacts before any intervention has occurred. Attendance during the prior school year and attendance during the first month of school are both good predictors of chronic absenteeism during the school year and can be used to identify and provide early intervention for students at-risk for attendance problems (e.g. Allensworth & Easton, 2007; Bauer et al., 2018).

Effective Prevention Strategies	
<u>Establish an attendance team</u>	
Effective attendance teams include students, families, school staff, and community members. These teams to regularly review attendance data and connect students who are experiencing high rates of absenteeism with interventions to address the root causes.	
Resources	Attendance Works team overview flyer: http://www.attendanceworks.org/wp-content/uploads/2018/08/Attendance-Team-Overview-8.2018-4.pdf All Hands Raised effective practices: http://allhandsraised.org/content/uploads/2017/05/Attendance-Learning-Practices.pdf

Set attendance goals

Setting school and district goals around attendance and clearly communicating them to community members can help focus efforts to reduce absenteeism. In Grand Rapids, Michigan, the school district has a targeted campaign called the *Challenge 5* which established the goal that all children will miss fewer than 5 days of school each year. Since implementing the challenge, the district has seen a reduction in chronic absenteeism (Grand Rapids Public Schools, 2018). Goals can also be set with individual students through Student Goal Plans.

Resources	<p>Challenge 5 website: https://www.grps.org/challengefive</p> <p>Attendance Works individual student goal plans: http://www.attendanceworks.org/resources/student-attendance-success-plans/</p> <p>Indiana Department of Education template for school attendance plans: https://www.doe.in.gov/sites/default/files/attendance/sample-high-school-attendance-plan.pdf</p>
-----------	---

Survey students for reasons of absenteeism

As discussed there are many root causes which contribute to chronic absenteeism. Before implementing interventions, an attendance team should collect data on the reasons for absenteeism in the school or district. Florida’s Problem Solving/Response to Intervention Project has developed two surveys regarding reasons for chronic absenteeism, one for students in grades 6-12 and one for student in pre-k or head start.

Resources	<p>Chronic Absenteeism Surveys: http://www.floridarti.usf.edu/resources/topic/chronic_absenteeism/index.html</p>
-----------	--

Develop a culture of attendance

Emphasizing the importance of attendance through communication, family involvement, a positive school climate, and public recognition of good and improved attendance can prevent absenteeism. Many resources exist for promoting back-to-school communication, developing student success plans, and implementing attendance incentives.

Resources	Attendance Works
-----------	------------------

	<ul style="list-style-type: none"> • Collection of resources: http://www.attendanceworks.org/resources/toolkits/for-principals-leading-attendance/cultivate-a-school-wide-culture-of-attendance/ • Develop a three tiered framework of supports: https://www.attendanceworks.org/chronic-absence/addressing-chronic-absence/3-tiers-of-intervention/ • Handouts to communicate the importance of attendance around holidays and winter weather: https://www.attendanceworks.org/resources/messaging/ <p>Communities Supporting Youth Collaborative toolkit: https://multco.us/file/8299/download</p>
--	--

Targeted communication

Communicating with families regarding the importance of attendance and their child’s current attendance rate is an effective method of prevention for reducing absenteeism (Sheldon & Epstein, 2004). Messages promoting attendance can take multiple forms including recognizing excellent attendance in school newsletters (e.g. Rogers & Feller, 2016; Sheldon & Epstein, 2004), personalized text messages to parents when a student is absent (e.g. Balu, Porter, & Gunton, 2016; Bergman & Chan, 2017; Smythe-Leistico & Page), or notes to parents promoting the importance of regular attendance (Rogers et al., 2017). Messages should include school expectations and policies regarding attendance as well as information regarding the current number of absences (e.g. Sheldon & Epstein, 2004).

Resources	<p>Attendance Works provides a series of handouts for families including <i>How Sick is Too Sick?</i> And <i>Build the Habit of Good Attendance</i>: http://www.attendanceworks.org/resources/handouts-for-families/</p> <p>Planning guide for families to identify solutions to potential transportation barriers: http://www.attendanceworks.org/wp-content/uploads/2017/10/Family-Help-Bank-1.pdf</p> <p>Report on a text messaging program: http://www.columbia.edu/~psb2101/ParentRCT.pdf</p> <p>Sample note home forms: https://www.cde.ca.gov/ls/ai/sb/sarbhandbook.asp</p>
-----------	---

Intervention

Interventions will only be effective if they match the root causes for absenteeism. For example, building positive relationships with a student will not improve attendance if the student is facing barriers with transportation to school. We have organized the following interventions to address the root causes by health, transportation, family-school connections, and student-school connections. For each intervention we provide a brief description and links for resources. The amount of research and evidence of effectiveness for these interventions vary. Therefore, we categorized the interventions based on the four levels of evidence identified under ESSA (U.S. Department of Education, 2016b).

- *Strong*: Supported by at least one well-designed and implemented *experimental* study (e.g. randomized control trial) which used a large sample and shows statistically significant and positive effects of the intervention on the relevant student outcome.
- *Moderate*: Supported by at least one well-designed and implemented *quasi-experimental* study which used a large sample and shows statistically significant and positive effects of the intervention on the relevant student outcome.
- *Promising*: Supported by at least one well-designed and implemented *correlational* study which includes controls for selection bias and shows significant and positive effects of the intervention on the relevant student outcome.
- *Demonstrates a rationale*: Supported by a well-specified logic model or theory of action with ongoing efforts to collect evidence regarding the effects of the intervention.

Health
<u>School breakfast program</u>

Schools provide breakfast to students, often for free or at reduced cost. Traditional breakfast programs offer breakfast which students can eat in the cafeteria before the start of the school day. More recently, research and government programs are supporting breakfast as an integrated part of the school day through “breakfast in the classroom” or “grab and go” models (e.g. Food Research & Action Center, 2016; Murphy, Pagano, Nachmani, Sperling, Kane, & Kleinman, 1998).

Evidence-base	Moderate
---------------	----------

Resources	<p>Food Research & Action Center: http://www.frac.org/programs/school-breakfast-program; http://www.frac.org/research/resource-library/start-breakfast-bell-program</p> <p>Attendance Works Policy Brief: http://www.attendanceworks.org/wp-content/uploads/2018/01/BreakfastAndAttendance-PolicyBrief-2017.pdf</p>
-----------	--

School nurse studies

Multiple studies have found that having full-time nurses at school decreased the number of student absences due to illness (e.g. Jacobsen, Meeder, Voskuil, 2016; Pianalto & Wall, 2016). A greater impact was found for students with chronic health conditions such as asthma (Rodriguez et al., 2013). School nurses can address absenteeism through the implementation of preventative health action plans, providing health and nutrition education, and case management.

Evidence-base	Moderate
---------------	----------

Resources	<p>CDC fact sheet on the role of school nurses: https://www.cdc.gov/healthyschools/chronic_conditions/pdfs/2017_02_15-FactSheet-RoleOfSchoolNurses_FINAL_508.pdf</p> <p>Checklist from Attendance Works for key components of a School-Based Health Program: http://www.attendanceworks.org/wp-content/uploads/2017/09/School-Health-Center-Self-Assessment-Tool-Revised-2-25-2011t.pdf</p>
-----------	---

Flu shots

Illness is a leading cause of absenteeism with influenza the biggest culprit among immunizable diseases (Attendance Works, 2015; Wiseman & Dawson, 2015). Some research has found correlational relationships between vaccination rates at schools and the number of absences,

<p>suggesting that increasing vaccination rates may improve attendance through herd immunity (e.g. Hull & Ambrose, 2011; King et al., 2005; Plaspohl et al., 2014). Additionally, studies have found increased rates of immunization when schools partner with public health departments to provide vaccinations in the school setting (e.g. Plaspohl et al., 2014; Szilagyi et al., 2016).</p>	
Evidence-base	Promising
Resources	<p>Guide from the Association of State and Territorial Health Officials regarding considerations for establishing a school-located influenza vaccination (SLIV) program: http://www.astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Public-Health-and-Schools-Toolkit/Vaccination-Clinics-in-Schools/</p> <p>Toolkit from the National Association of County and City Health Officials with information for health department and schools about partnering to establish an SLIV: https://www.naccho.org/programs/community-health/infectious-disease/influenza/tool-school-located-influenza-immunization</p>
Ventilation in schools	
<p>A study in California measured the ventilation rates in over 150 classrooms and the attendance rates of students in those same classrooms (Mendell et al., 2013). They found a consistently strong relationship between poor ventilation and high rates of absenteeism across school districts. Ventilation problems were higher in schools which kept the windows closed most of the year to minimize heating and cooling costs (Mendell et al., 2013).</p>	
Evidence-base	Promising
Resources	<p>Berkeley Lab featured a story on the study: http://newscenter.lbl.gov/2013/06/05/more-fresh-air-in-classrooms-means-fewer-absences/</p> <p>EPA guidelines for improving air quality in schools: https://www.epa.gov/iaq-schools/what-you-can-do-improve-academic-performance</p>
Pest control	

<p>Asthma is a major root cause of chronic absenteeism and research has found a link between cockroach exposure and the severity of asthma symptoms. A study involving community efforts to improve cockroach control by distributing bait traps to families of children with moderate to severe asthma who demonstrated a risk of household exposure to cockroaches found decreased asthma symptoms of students in the treatment group over the 12-months of the study (Rabito, Carlson, He, Werthmann, & Schal, 2017). The EPA also released a report suggesting that improved pest control in schools could impact student attendance, although empirical studies have not yet demonstrated direct impact on attendance rates (EPA, 2016).</p>	
Evidence-base	Demonstrates a rationale
Resources	EPA collection of resources regarding the management of pests in schools: https://www.epa.gov/managing-pests-schools

Transportation	
<u>Free or reduced bus passes</u>	
<p>School districts in large urban areas (e.g. New York City, Portland, Washington, D.C.) have partnered with the local public transportation to provide reduced fare or free rides for k-12 students on public buses. Although previous studies in California (Gase, Kuo, Teutsch, & Fielding, 2014; McDonald, Librera, Deakin, 2004) found small or no impacts on student attendance, a recent study by researchers at the University of Minnesota found that Minneapolis Public School (MPS) students using the Student Pass program had 23% lower absenteeism than students attending MPS schools not enrolled in the program (Fan & Das, 2015). Students using the public bus system have flexibility in their schedule and are not limited to the fixed bus times of the traditional school bus system. This change is credited with the improved attendance rates. Students also reported benefitting from the flexibility to use the public bus system for transportation to work after school and a reduced dependency on their parents (Fan & Das, 2015).</p>	
Evidence-base	Moderate
Resources	Minnesota Report: http://www.cts.umn.edu/publications/catalyst/2016/february/studentpass

	Beyond the Yellow Bus national report: https://files.eric.ed.gov/fulltext/ED558542.pdf
Providing bus service	
One study which used a large, nationally representative sample found that kindergarten students who regularly rode a school bus to school had fewer total absences and a lower likelihood of being chronically absent (Gottfried, 2017). These higher attendance rates among school bus riders remained even when examining the data by sub-groups of students. The researchers speculated that riding a school bus may improve attendance helping families set routines and removing logistical barriers for attendance.	
Evidence-base	Moderate
Resources	Summary of the study: https://www.brookings.edu/blog/brown-center-chalkboard/2017/05/17/children-who-take-the-school-bus-have-fewer-absences/
Promoting safe routes to school	
One method for increasing the safety of students walking to school is a <i>walking school bus</i> (National Center for Safe Routes to School, 2016). One or more adults accompany a group of children as they walk to and from school. This promotes connections between students in the group and greater safety and supervision. Walking school buses may be organized by a group of parents or may be sponsored by the school with teaching staff overseeing the route. Another campaign supported by the National Center for Safe Routes to School promotes community efforts to increase traffic safety and slow traffic speeds around schools by implementing <i>Vision Zero for Youth</i> policies. While these efforts have been shown to increase the number of students walking to school, the effects on attendance have not been documented (Moodie, Haby, Galvin, Swinburn, & Carter, 2009).	
Evidence-base	Demonstrates a rationale
Resources	Walking School Bus Guide: http://guide.saferoutesinfo.org/walking_school_bus/ National Center for Safe Routes to School: http://www.saferoutesinfo.org/

Family – School Connections

Home visits

Home visits from teachers or school staff have been promoted as a way to build school-family connections. Although the effect of home visits on attendance rates has not been studied in isolation, they have been tested as part of multi-component interventions with positive results (e.g. Epstein & Sheldon, 2002; Ford & Sutphen, 1996). Home visits for students prior to entering school through pre-school or school-readiness programs have also shown effectiveness in increasing attendance for students once they begin attending school (Nievar, Brown, Nathans, Chen, & Martinez-Cantu, 2018). In all of these programs, the goals were two-fold: build relationships and encourage families to establish school preparation routines (e.g. consistent bedtime, assistance getting up on time, set breakfast routine).

Evidence-base	Promising
Resources	<p>Tips from the National Education Association for starting home visits: http://www.nea.org/home/34090.htm</p> <p>Information about the Parent Teacher Home Visits program started by the Sacramento City Teachers Association: http://www.pthvp.org/</p> <p>Report about the Parent/Teacher Home Visiting Project from St. Paul, MN: http://www.pthvp.org/wp-content/uploads/2016/09/spft-evaluation-2014.pdf</p>

Targeted communication

Communication with families is one of the most effective methods for reducing absenteeism (Sheldon & Epstein, 2004). Messages promoting attendance can take multiple forms including recognizing excellent attendance in school newsletters (e.g. Rogers & Feller, 2016; Sheldon & Epstein, 2004), personalized text messages to parents when a student is absent (e.g. Balu, Porter, & Gunton, 2016; Bergman & Chan, 2017; Smythe-Leistico & Page), or notes to parents promoting the importance of regular attendance (Rogers et al., 2017). Messages should include school expectations and policies regarding attendance as well as information regarding the current number of absences (e.g. Sheldon & Epstein, 2004). Results of these communication methods have been mixed, and more research is needed to understand the most effective means of communication.

Evidence-base	Promising
---------------	-----------

Resources	<p>Attendance Works provides a series of handouts for families including <i>How Sick is Too Sick? And Build the Habit of Good Attendance</i>: http://www.attendanceworks.org/resources/handouts-for-families/</p> <p>Planning guide for families to identify solutions to potential transportation barriers: http://www.attendanceworks.org/wp-content/uploads/2017/10/Family-Help-Bank-1.pdf</p> <p>Report on a text messaging program: http://www.columbia.edu/~psb2101/ParentRCT.pdf</p> <p>Reports on an attendance note program: https://ies.ed.gov/ncee/edlabs/regions/midatlantic/pdf/REL_2017252.pdf http://www.attendanceworks.org/wp-content/uploads/2015/01/Todd-Rogers-Avi-F-nfluentia_third_parties.pdf</p> <p>Sample note home forms: https://www.cde.ca.gov/ls/ai/sb/sarbandbook.asp</p>
-----------	---

Student – School Connections	
<u>Afterschool programs</u>	
<p>High quality afterschool or expanded learning programs not only provide students with a safe and supportive environment, but also are effective at improving attendance rates (e.g. Huang, Gribbons, Kim, Lee, & Baker, 2000; Wahlstrom, Sheldon, & Lewis, 2004). Positive effects were found both for school-based programs such as the programs implemented in Saint Paul Public Schools through the 21st Century Community Learning Center Grant and for community-based programs such as Boys & Girls Clubs and United Way (Arbreton, Bradshaw, Sheldon, & Pepper, 2009; Lotyczewski, & Montes, 2012; Wahlstrom et al., 2004).</p>	
Evidence-base	Strong
Resources	<p>From Attendance Works: https://www.attendanceworks.org/take-action/educators/expanded-learning-providers/</p> <p>CAREI’s evaluation report on the impact of after school program in St. Paul Public Schools: http://hdl.handle.net/11299/1048</p>

	Afterschool Alliance: http://afterschoolalliance.org/
Mentoring	
<p>High quality mentoring programs help students build connections to school, provide an additional caring adult presence, and improve student attendance (e.g. Balfanz & Byrnes, 2018). Studies of two programs, Big Brothers Big Sisters and Check and Connect, found positive impacts on attendance for students participating in the program as compared to peers (e.g. Grossman & Tierney, 1998; Guryan et al., 2017; Herrera, Grossman, Kauh, Feldman, McMaken, & Jucovy, 2007). Two essential components of both programs are the level of training provided to the mentors and the expectation that the relationship between mentors and students will continue over multiple years. New York City was one of the first to implement mentoring with the specific intention of affecting attendance with the Success Mentors program (Balfanz & Byrnes, 2018). This model has since evolved into the My Brother’s Keeper Alliance (MBK Alliance) from the Obama Foundation which is working to take mentoring programs to scale and specifically support young men of color (Bauer, Liu, Schanzenbach, & Shambaugh, 2018).</p>	
Evidence-base	Strong
Resources	<p>Big Brothers Big Sisters: http://www.bbbs.org/</p> <p>Check and Connect: http://checkandconnect.umn.edu/</p> <p>My Brother’s Keeper Alliance https://www.mentoring.org/why-mentoring/mentoring-impact/</p> <p>Toolkit for implementing a Success Mentors program at the school or district level: https://www.attendanceworks.org/resources/toolkits/mentoring-elementary-success-mentors/</p>
School refusal and anxiety interventions	
<p>Incentives and rewards for attendance behavior, social skills training, and school-based anxiety counseling are all recommended to improve attendance for students who have attendance barriers related to anxiety or school refusal (Kearney, 2008). Students experiencing school refusal have difficulty attending school due to emotional distress, often related to anxiety or depression (King, Heyne, Tonge, Gullone, & Ollendick, 2001). A combination of therapy, desensitization training, relaxation or meditation interventions, parent training, and social skills interventions can help</p>	

alleviate these symptoms (e.g. Maynard, Heyne, Esposito Brendel, Bulanda, Thompson, & Pigott, 2018).	
Evidence-base	Strong
Resources	<p>Evidence-based Practices for School Refusal and Truancy from the National Association of School Psychologists: https://www.nasponline.org/books-and-products/products/books/titles/evidence-based-practices-for-school-refusal-and-truancy</p> <p>Strategies for supporting students: https://www.psychologytoday.com/us/blog/worry-free-kids/201710/how-help-child-overcome-school-refusal</p>
<u>Providing attendance incentives</u>	
<p>Positive awards and recognition have been shown to increase attendance (Sutphen, Ford, & Flaherty, 2010). Specific interventions have included token economies, public recognition through attendance rewards or bulletin boards, a “free pass” on homework, or other tangible rewards such as treats, movie tickets, or school supplies (e.g. Davis, 2015; Sutphen, Ford, & Flaherty, 2010). The impact of attendance incentives has not been studied in isolation. However, when used in combination with other interventions such as behavioral contracts, group meetings, or phone calls to parents, these individual incentives have led to increases in attendance (e.g. Brooks, 2001; Ford & Sutphen, 1996; Licht, Gard, & Guardino, 1991). Cash incentives have also been proposed. One study in Chicago paid students for their grades in five core course and found increases in attendance rates (Fryer, 2011). Incentives have also been implemented at the class level, such as providing a pizza party to the class with the highest attendance, but these group incentives have not been empirically tested (Balu & Ehrlich, 2018).</p>	
Evidence-base	Moderate
Resources	<p>Attendance Works</p> <ul style="list-style-type: none"> • Guide for establishing school-wide attendance incentives: http://www.attendanceworks.org/wp-content/uploads/2017/10/Attendance-Works-Establishing-School-wide-Attendance-Incentives.pdf

	<ul style="list-style-type: none"> Collection of tips and resources: http://www.attendanceworks.org/resources/toolkits/for-principals-leading-attendance/cultivate-a-school-wide-culture-of-attendance/ <p>Baltimore schools recognition program for improved attendance: https://www.baltimorecityschools.org/Page/25511</p>
<p>Alternative discipline practices</p>	
<p>The majority of school suspensions are related to minor misbehaviors and disruptions (e.g. Gonzalez, 2012; Mallett, 2016; Vavrus & Cole, 2002). Suspensions do not teach students how to correct behaviors or address root causes of a problem (Flannery et al., 2012). Alternative discipline practices emphasize teaching emotion and behavioral regulation skills to students and supporting teachers and administrators in finding ways to positively engage students in school (Freiberg & Lapointe, 2006). Examples of alternative discipline include peer mediation, restitution practices, behavioral contracts, and anger management training (Skiba, 2010). A case study in Minnesota found a decrease in unexcused absences after implementing lunch detention as a consequence for unexcused absences (Reeves, 2008). Denver Public Schools have produced a series of studies showing that restorative justice interventions are associated with positive outcomes including decreasing suspensions and improving attendance (e.g. Baker, 2010; Gregory, Huang, Anyon, Greer, & Downing, 2018). Additionally, prevention strategies such as school-wide bullying prevention and improved staff training on classroom management can decrease the number of misbehaviors and disruptions (Skiba, 2010).</p>	
Evidence-base	Promising
Resources	<p>Resources from MDE relating to alternative discipline options: https://education.mn.gov/MDE/dse/sped/alt/</p> <p>Summary of new research on discipline including targeted recommendations from The Equity Project at Indiana University: http://www.racialequityresourceguide.org/resource/new-and-developing-research-on-disparities-in-discipline</p> <p>Resources on restorative intervention from a coalition including Denver Public Schools: http://denverrp.org/educators/</p>

Grade transitions

The transition into school in pre-k, kindergarten, and first grade and the transition to high school in ninth grade have both been identified as critical times for establishing consistent attendance (Balfanz et al., 2007). The transition in the early years of school is hypothesized to indicate the need for students and families to establish school-going routines. Providing additional support and encouragement of attendance at this age may have long-term effects on attendance. Research from the University of Chicago Consortium on Chicago School Research (UChicago CCSR) found the pre-k to kindergarten transition was facilitated when (a) shared professional learning community of pre-k and kindergarten teachers, (b) common classroom practices, and (c) combined family-school partnership events were established. These interventions improved the sense of community for kindergarten families (Spain, Ehrlich, Cowhy, Dasgupta, & Lockaby, 2018). Another study found that attending center-based pre-k decreased chronic absenteeism in kindergarten, supporting the idea that families need time to establish school-going skills (Gottfried, 2015a). Additionally, a pilot study which specifically targeted kindergarten families for a text-messaging intervention resulted in significant improvements attendance (Smythe-Leistico & Page, 2018).

Ninth grade is another important year for addressing chronic absenteeism. Various factors may contribute to the decline in attendance associated with the transition to high school including the loss of relationships with middle school teachers and peers, larger class sizes, and increased academic demands. Ninth grade has the highest rate of academic failure and dropout (Alspaugh, 1998). Research from UChicago CCSR has identified supporting the ninth grade transition as an effective practice for getting students “on-track” to graduate (Roderick, Kelley-Kemple, Johnson, & Beechum, 2014). One strategy to help students build connection is the use of ninth grade academies or houses (e.g. Railsback, 2004; McPartland, Balfanz, Jordan, & Legters 1998). These smaller groupings allow students to build relationships with teachers and peers more quickly.

Evidence-base	Promising
Resources	Guide for supporting the transition to high school: https://www2.ed.gov/programs/slcp/ninthgradecounts/ninthgradecountsguide.pdf University of Chicago’s research on absenteeism: https://consortium.uchicago.edu/publication-tags/attendance-absenteeism

	Attendance Works research on absenteeism in early education: http://www.attendanceworks.org/research/early-education/
<u>Positive school climate</u>	
<p>School in which students rate their school climate as a positive environment, as compared to a marginal or negative climate, have significantly lower rates of chronic absenteeism (e.g. Allensworth & Easton, 2007; Van Eck, Johnson, Bettencourt, & Lindstrom Johnson, 2017). This indicates that implementing a universal (Tier 1) intervention to improve school climate could greatly impact student attendance. School wide positive behavior support programs such as School-Wide Positive Behavioral Interventions and Supports (SWPBIS), use a system of defining, teaching, and reinforcing expectations with data-based differentiated interventions (Sugai et al., 2010). This fosters positive connections with staff and a sense of belonging in the school. Research has demonstrated that schools which implement SWPBIS with fidelity have significantly higher rates of attendance (Freeman, Simonsen, McCoach, Sugai, Lombardi, & Horner, 2016).</p>	
Evidence-base	Promising
Resources	<p>Nation School Climate Center: https://www.schoolclimate.org/</p> <p>National Center on Safe Supportive Learning Environments: https://safesupportivelearning.ed.gov/</p> <p>Positive Behavioral Intervention & Supports OSEP Technical Assistance Center: https://www.pbis.org/</p>
<u>Anti-bullying programs</u>	
<p>Being bullied is associated with both absences due to school refusal and overall truancy rates (Havik, Bur, & Ertesvag, 2015). The relationship between being bullied and school refusal is especially strong for elementary students (Havik et al., 2015). Bias-based bullying related to racial/ethnic identity or sexual orientation can be especially problematic for youth (Sinclair, Bauman, Poteat, Koenig, & Russell, 2012). Anti-bullying programs can reduce these negative effects. One study found that having a state law related to anti-bullying was significantly associated with lower rates of absenteeism due to feeling unsafe (fear-based absenteeism) for students who identified as LGBTQ (Seelman & Walker, 2018). Additionally, multiple meta-analyses of anti-bullying programs demonstrate positive effects in reducing bullying behaviors and victimization (e.g. Jiménez-Barbero, Ruiz-Hernández, Llor-Zaragoza, Pérez-García, & Llor-Esteban, 2016; Ttofi & Farrington, 2011).</p>	

Effective anti-bullying programs are implemented school-wide, develop students' social and emotional competencies, teach students how to respond to bullying behaviors, provide professional development to teachers regarding cultivating a positive school climate, and are implemented with fidelity (Centre for Education Statistics and Evaluation, 2017). More research is needed to establish a direct connection between anti-bullying programs and attendance, but reducing the rate of both bullying perpetration and victimization will improve students' perceptions of safety at school, which should increase attendance (Varjas, Henrich, & Meyers, 2009).

Evidence-base	Demonstrate a rationale
Resources	<p>Review of anti-bullying interventions from the Centre for Education Statistics and Evaluation: https://education.nsw.gov.au/student-wellbeing/media/documents/attendance-behaviour-engagement/behaviour/Anti-Bullying-in-Schools_What-Works.pdf</p> <p>U.S. Department of Health and Human Services anti-bullying website: https://www.stopbullying.gov/</p>

Other
<u>Community partnerships</u>
<p>Recognizing the many root causes and contributing factors of chronic absenteeism, communities have established wrap-around services to support student attendance. In Oregon, the organization <i>All Hands Raised</i> coordinates attendance efforts focused around specific, high-needs communities with partnerships with the county, state department of human services, a local housing organization, and the schools (All Hands Raised, 2018). In Pennsylvania, the United Way coordinated the <i>Be There Campaign</i> with (a) data sharing between the local school districts and the county department of human services, (b) an ad campaign on buses and billboards, (c) coordinated efforts with early childhood providers to promote school readiness, and (d) attendance interventions in local school (Childs, 2017). The largest campaign was in New York City and incorporated the school district, multiple city, county and state agencies, the police department, local nonprofits and businesses. Representatives from these stakeholders collaboratively planned a comprehensive campaign of (a) data sharing, (b) personalized mentoring through the <i>Success Mentors</i> program, (c) weekly student success meetings at all participating schools, (d) a city-wide ad campaign, (e) strategies to link</p>

<p>families to community resources including shelters, mental health partners, asthma workshops, and teen pregnancy clinics, and (f) a system of incentives and recognition for good and improved attendance (Balfanz & Byrnes, 2018). The New York campaign was evaluated in a four-year longitudinal study and found decreased absenteeism in the participating schools.</p>	
Evidence-base	Moderate
Resources	<p>United Way <i>Be There Campaign</i>: https://uwsdpa.org/be-there/</p> <p>Every Student, Every Day community toolkit: https://www2.ed.gov/about/inits/ed/chronicabsenteeism/toolkit.pdf</p>
<p>School start times</p>	
<p>Adolescents biologically have later sleep onset and wake times which often combine with environmental factors such as extracurricular activities, after-school jobs, homework, and technology use to lead teens to stay up late and get too little sleep on school nights (American Academy of Pediatrics, 2014). The National Sleep Poll (2014) found that 71% of middle school students and 90% of high school students were not getting the recommended amount of sleep. One solution is later start times for middle and high schools. Research has repeatedly demonstrated a relationship between earlier school start times and frequent tardiness and absenteeism (Wheaton, Chapman, & Croft, 2016). Empirical studies have also found improved attendance when schools delayed their start times (e.g. Owens, Belon, Moss, 2010; Wahlstrom, 2002; Wahlstrom, Dretzke, Gordon, Peterson, Edwards, Gdula, 2014).</p>	
Evidence-base	Moderate
Resources	<p>American Academy of Pediatrics brief regarding start times for adolescents: http://pediatrics.aappublications.org/content/134/3/642</p> <p>National campaign for later school start times: https://www.startschoollater.net/</p> <p>CAREI report on the impact of later high school start times: http://hdl.handle.net/11299/162769</p>
<p>School washers & dryers</p>	
<p>A principal in St. Louis discovered that some students were missing school because their families did not have consistent access to a washing machine and they did not want to come to school with dirty</p>	

clothes. The Whirlpool company donated a washer and dryer to the school and the school partnered with the families of students with chronic absenteeism to have students' clothes laundered at school. In the first year, over 90% of the students participating in the program had improved attendance (Tomar, 2018). Whirlpool has now expanded their *Care Counts* program and reports improved attendance, increased classroom participation, and increased participation in extracurricular activities for students participating in the program (Whirlpool, 2018). A high school in Newark, New Jersey similarly partnered with a local utility company for a grant to turn an old locker room into a laundromat and used Amazon Wish List to provide students with free detergent (Dawson, 2018). Another school in Detroit used DonorsChoose.org to obtain their washer as well as extra uniforms and toiletries (Taylor, 2018).

Evidence-base	Demonstrates a rationale
Resources	Whirlpool's Care Counts™ Laundry program https://carecounts.whirlpool.com/

Conclusion

Chronic absenteeism is a growing concern nationwide with nearly 8 million students (16%) were chronically absent (Chang et al., 2018). In Minnesota, 12% of students in grades 1-12 experience chronic absenteeism, defined as being absent for more than 10% of school days (MDE, 2018b). Research has identified multiple root causes of chronic absenteeism and identified that each student may face a combination of *barriers, aversions, and disengagement* which deter attendance (e.g. Chang et al., 2018; Humm Brundage et al., 2017). Best practices for addressing chronic absenteeism include the establishment of school- or district-level attendance teams which use a data-based process for identifying students at-risk for chronic absenteeism, identifying the root causes for individual students, and aligns interventions which address those causes.

References

- Alexander, K. L., Entwisle, D. R., & Horsey, C. S. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education, 70*, 87-107.
- All Hands Raised. (2018). *K-12 Attendance*. Retrieved from <http://allhandsraised.org/what-we-do/our-impact/attendance/>.
- Allensworth, E. M., & Easton, J. Q. (2007). *What matters for staying on-track and graduating in Chicago Public High Schools: A close look at course grades, failures, and attendance in the freshman year*. Chicago, IL: Consortium on Chicago School Research.
- Alspaugh, J. W. (1998). The relationship of school-to-school transitions and school size to high school dropout rates. *The High School Journal, 81*, 154-160.
- American Academy of Pediatrics. (2014). School start times for adolescents. *Pediatrics, 134*, 642-649.
- Applied Survey Research. (2011). *Attendance in early elementary grades: Associations with student characteristics, school readiness, and third grade outcomes*. San Jose, CA: Author. Retrieved from <http://www.attendanceworks.org/>
- Arbreton, A. Bradshaw, M., Sheldon, J., & Pepper, S. (2009). *Making every day count: Boys & Girls Clubs' role in promoting positive outcomes for teens*. Philadelphia, PA: Public/Private Ventures.
- Attendance Works. (2015). *Mapping the early attendance gap: Charting a course for school success*. Retrieved from http://www.attendanceworks.org/wp-content/uploads/2017/05/Mapping-the-Early-Attendance-Gap_Final-4.pdf.

- Attendance Works & Everyone Graduates Center. (2016). *Preventing missed opportunity: Taking collective action to confront chronic absence*. Retrieved from http://new.every1graduates.org/wp-content/uploads/2016/09/PreventingMissedOpportunityFull_FINAL.pdf
- Baker, M. L. (2008). *DPS restorative justice project: Executive summary*. Denver, CO: Outcomes, Inc.
- Balfanz, R., & Byrnes, V. (2012). *The importance of being there: A report on absenteeism in the nation's public schools*. Baltimore, MD: Baltimore: Johns Hopkins University Center for Social Organization of Schools.
- Balfanz, R., & Byrnes, V. (2018). Using data and the human touch: Evaluating the NYC inter-agency campaign to reduce chronic absenteeism. *Journal of Education for Students Placed at Risk (JESPAR)*, 23, 107-121.
- Balfanz, R., Byrnes, V., & Fox, J. H. (2014). Sent home and put off track: The antecedents, disproportionalities, and consequences of being suspended in the ninth grade. *Journal of Applied Research on Children*, 5. Available at: <http://digitalcommons.library.tmc.edu/childrenatrisk/vol5/iss2/13>.
- Balfanz, R., Herzog, L., & Mac Iver, D. J. (2007). Preventing student disengagement and keeping students on the graduation path in urban middle-grades schools: Early identification and effective interventions. *Educational Psychologist*, 42, 223-235.
- Balu, R. & Ehrlich, S. B. (2018) Making sense out of incentives: A framework for considering the design, use, and implementation of incentives to improve attendance, *Journal of Education for Students Placed at Risk*, 23, 93-106,

- Balu, R., Porter, K., & Gunton, B. (2016). Can informing parents help high school students show up for school. *Policy Brief*. New York, NY: MDRC.
- Barbarese, W.J., Katusic, S.K., Colligan, R.C., Weaver, A.L., & Jacobsen, S.J. (2007). Long-term school outcomes for children with attention-deficit/hyperactivity disorder: A population-based perspective. *Journal of Developmental and Behavioral Pediatrics, 28*, 265–273.
- Basch, C. E. (2011). Asthma and the achievement gap among urban minority youth. *Journal of School Health, 81*, 606-613.
- Bauer, L., Liu, P., Schanzenbach, D. W., & Shambaugh, J. (2018). *Reducing Chronic Absenteeism under the Every Student Succeeds Act*. Washington, D.C.: The Hamilton Project.
- Bevans, K. B., Bradshaw, C. P., Miech, R., & Leaf, P. J. (2007). Staff- and school-level predictors of school organizational health: A multilevel analysis. *The Journal of School Health, 77*, 294–30
- Black, A. T., Seder, R. C., & Kekahio, W. (2014). *Review of research on student nonenrollment and chronic absenteeism: A report for the Pacific Region (REL 2015–054)*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Pacific. Retrieved from <http://ies.ed.gov/ncee/edlabs>.
- Brooks, B. D. (1975). Contingency management as a means of reducing school truancy. *Education, 95*, 206-211.

- California Department of Education (2017, December). *State schools chief Tom Torlakson announces statewide chronic absenteeism data available for the first time. News release*. Retrieved from <https://www.cde.ca.gov/nr/ne/yr17/yr17rel88.asp>
- Centre for Education Statistics and Evaluation. (2017). *Anti-bullying interventions in schools – what works?* Sydney, Australia: Centre for Education Statistics and Evaluation.
- Chang, H. N., Bauer, L., & Byrnes, V. (2018). Data matters: Using chronic absence to accelerate action for student success. Attendance Works and Everyone Graduates Center. Retrieved from <http://www.attendanceworks.org/data-matters/>.
- Childs, J. (2017). What Pittsburgh is doing to ensure every child has a fighting chance to succeed. *National Civic Review*, 106, 3–9.
- Cholewa, B., Hull, M. F., Babcock, C. R., & Smith, A. D. (2018). Predictors and academic outcomes associated with in-school suspension. *School Psychology Quarterly*, 33, 191-199.
- Christenson, S. L., Sinclair, M. F., Lehr, C. A., & Godber, Y. (2001). Promoting successful school completion: Critical conceptual and methodological guidelines. *School Psychology Quarterly*, 16, 468-484.
- Connolly, F., & Olson, L. S. (2012). *Early elementary performance and attendance in Baltimore City Schools' pre-kindergarten and kindergarten*. Baltimore, MD: Baltimore Education Research Consortium.
- Cortiella, C., & Boundy, K. B. (2018, April). *Students with disabilities and chronic absenteeism*. (NCEO Brief #15). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

- Cutler, D. M., & Lleras-Muney, A. (2006). *Education and health: Evaluating theories and evidence* (Working Paper 12352). Cambridge, MA: National Bureau of Economic Research.
- Davis, L. (2014). *Student attendance: A school's intervention to increase attendance* (Doctoral dissertation) Available from <http://www.nwmissouri.edu/library/researchpapers/2015/Davis,%20Luke.pdf>.
- Dawson, C. (2018, August 21). When students were bullied because of dirty clothes, a principal installed a free laundromat at school. *CNN*. Retrieved from <https://www.cnn.com/2018/08/21/health/iyw-school-laundry-room-trnd/index.html>.
- Da Costa Nunez, R., Erb-Downward, J., & Shaw-Amoah, A. (2015). *Empty seats: The epidemic of absenteeism among homeless elementary students*. The Institute for Children, Poverty, and Homelessness. Retrieved from http://www.icphusa.org/new_york_city/empty-seats-the-epidemic-of-absenteeism-among-homeless-elementary-students/
- Dubay, L., & Holla, N. (2016). *Does attendance in early education predict attendance in elementary school? An analysis of DCPS's early education program*. Washington, DC: Urban Institute.
- Egger, H. L., Costello, E. J., & Angold, A. (2003). School refusal and psychiatric disorders: A community study. *Journal of American Academy of Child and Adolescent Psychiatry*, 42, 797-807.
- Ehrlich, S. B., Gwynne, J. A., & Allensworth, E. M. (2018). Pre-kindergarten attendance matters: Early chronic absence patterns and relationships to learning outcomes. *Early Childhood Research Quarterly*, 44, 136-151.

- Engberg, J. & Morral, A.R. (2006) Reducing substance use improves adolescents' school attendance. *Addiction, 101*, 1741-1751.
- Environmental Protection Agency (2016). *Preventing pests for healthier school: The health case for integrated pest management*. Washington, DC: Author. Retrieved from: <https://www.epa.gov/sites/production/files/2016-04/documents/preventing-pests-for-healthier-schools.pdf>
- Epstein, J. L., & Sheldon, S. B. (2002). Present and accounted for: Improving student attendance through family and community involvement. *The Journal of Educational Research, 95*, 308-318.
- Erbstein, N., Olagundoye, S., Hartzog, C. (2015). *Chronic absenteeism in Sacramento City Unified School District: Emerging lessons from four learning collaborative sites*. Davis, CA: UC Davis Center for Regional Change.
- Fan, Y. & Das, K. V. (2015). *Assessing the impacts of student transportation on public transit*. Minneapolis, MN: University of Minnesota. Center for Transportation Studies.
- Farmer, T.W., Estell, D. B., Leung, M. C., Trott, H., Bishop, J., & Cairns, B. D. (2003). Individual characteristics, early adolescent peer affiliations, and school dropout: An examination of aggressive and popular group types. *Journal of School Psychology, 41*, 217-232.
- Feldman, M. A., Ojanen, T., Gesten, E. L., Smith-Schrandt, H., Brannick, M., Totura, C. M. W., ... & Brown, K. (2014). The effects of middle school bullying and victimization on adjustment through high school: Growth modeling of achievement, school attendance, and disciplinary trajectories. *Psychology in the Schools, 51*, 1046-1062.

- Flaherty, C. W., Sutphen, R. D., & Ely, G. E. (2012). Examining substance abuse in truant youths and their caregivers: Implications for truancy intervention. *Children & Schools, 34*, 201-21.
- Flannery, K. B., Frank, J. L., & Kato, M. M. (2012). School disciplinary responses to truancy: Current practice and future directions. *Journal of School Violence, 11*, 118-137.
- Food Research & Action Center (2016). *School breakfast: Making it work in large school districts*. Washington, DC: Author.
- Ford, J., & Sutphen, R. (1996). Early intervention to improve attendance in elementary school for at-risk children: A pilot program. *Social Work in Education, 18*, 95-102.
- Freiberg, H. J., & Lapointe, J. M. (2006). Research-based programs for preventing and solving discipline problems. In C. M. Evertson & C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 735–786). Mahwah, NJ: Lawrence Erlbaum.
- Freeman, J., Simonsen, B., McCoach, D. B., Sugai, G., Lombardi, A., & Horner, R. (2016). Relationship between school-wide positive behavior interventions and supports and academic, attendance, and behavior outcomes in high schools. *Journal of Positive Behavior Interventions, 18*, 41-51.
- Fryer, R. G. (2011). Financial incentives and student achievement: Evidence from randomized trials. *The Quarterly Journal of Economics, 126*, 1755–1798.
- Gase, L. N., Kuo, T., Teutsch, S., & Fielding, J. E. (2014). Estimating the costs and benefits of providing free public transit passes to students in Los Angeles County: Lessons learned

- in applying a health lens to decision-making. *International journal of environmental research and public health*, 11, 11384-11397.
- Gastic, B. (2008). School truancy and the disciplinary problems of bullying victims. *Educational Review*, 60, 391-404.
- Gonzalez, T. (2012). Keeping kids in schools: Restorative justice, punitive discipline, and the school to prison pipeline. *Journal of Law and Education*, 41, 281-335.
- Gottfried, M. A. (2014). Chronic absenteeism and its effects on students' academic and socioemotional outcomes. *Journal of Education for Students Placed at Risk (JESPAR)*, 19, 53-75.
- Gottfried, M. A. (2015a). Can center-based childcare reduce the odds of early chronic absenteeism? *Early Childhood Research Quarterly*, 32, 160-173.
- Gottfried, M. A. (2015b). Chronic absenteeism in the classroom context: Effects on achievement. *Urban Education*, 1-32.
- Gottfried, M. A. (2017). Linking getting to school with going to school. *Educational Evaluation and Policy Analysis*, 39, 571-592.
- Grand Rapids Public Schools. (2018). *Challenge Five*. Retrieved from <https://www.grps.org/challengefive>.
- Gregory, A., Huang, F. L., Anyon, Y., Greer, E., & Downing, B. (2018). An examination of restorative interventions and racial equity in out-of-school suspensions. *School Psychology Review*, 47, 167-182.
- Grossman, J. B. & Tierney, J. P. (1998). Does mentoring work? An impact study of Big Brothers Big Sisters program. *Educational Review*, 22, 403-426.

- Guare, R. E., & Cooper, B. S. (2003). *Truancy revisited: Students as school consumers*. Lanham, MA: Scarecrow Press.
- Guevara, J.P., Mandell, D., Danagouliau, S., Reyner, J., & Pati, S. (2013). Parental depressive symptoms and children's school attendance and emergency department use: A nationally representative study. *Maternal Child Health Journal, 19*, 1130–1137.
- Guryan, J., Christenson, S., Claessens, A., Engel, M., Lai, I., Ludwig, J. ... Turner, M. C. (2017). The effect of mentoring on school attendance and academic outcomes: A randomized evaluation of the Check & Connect Program. Institute for Policy Research Working Paper Series, WP-16-18. Evanston, IL: Northwestern University.
- Havik, T., Bru, E., & Ertesvåg, S. K. (2015). School factors associated with school refusal-and truancy-related reasons for school non-attendance. *Social Psychology of Education, 18*, 221-240.
- Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: National Center for Family and Community Connections with Schools.
- Henry, K. L. & Huizinga, D. H. (2007). Truancy's effect on the onset of drug use among urban adolescents placed at risk. *Journal of Adolescent Health, 40*, 358.e9–358.e17.
- Hernandez, D. J. (2012). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. Baltimore, MD: The Annie E. Casey Foundation.
- Herrera, C., Grossman, J.B., Kauh, T.J., Feldman, A.F., McMaken, J., & Jucovy, L.Z. (2007). *Making a difference in schools: The Big Brothers Big Sisters school-based mentoring impact study*. Philadelphia, PA: Public/Private Ventures.

- Hirschfield, P. (2004). *Impact of juvenile justice involvement on educational outcomes*. (Doctoral dissertation). Available from National Criminal Justice Reference Service.
- Hjalmarsson, R. (2008). Criminal justice involvement and high school completion. *Journal of Urban Economics*, *63*, 613-630.
- Hofferth, S. L., Reid, L., & Mott, F. L. (2001). The effects of early childbearing on schooling over time. *Family Planning Perspectives*, *33*, 259–267.
- Huang, D., Gribbons, B., Kim, K. S., Lee, C., & Baker, E. L. (2000). *A decade of results: The impact of the LA's BEST after school enrichment program on subsequent student achievement and performance*. Los Angeles, CA: UCLA Center for the Study of Evaluation.
- Hull, H. F., & Ambrose, C. S. (2011). The impact of school-located influenza vaccination programs on student absenteeism: a review of the US literature. *The Journal of School Nursing*, *27*, 34-42.
- Humm Brundage, A., Castillo, J. M., & Batsche, G. M. (2017). *Reasons for chronic absenteeism among secondary students: Survey summary report*. Tampa, FL: Florida's Problem Solving & Response to Intervention Project.
- Jacobsen, K., Meeder, L., & Voskuil, V. R. (2016). Chronic student absenteeism: the critical role of school nurses. *NASN School Nurse*, *31*, 178-185
- Janosz, M., Le Blanc, M., Boulerice, B. & Tremblay, R. (2000). Predicting different types of school dropouts: A typological approach with two longitudinal samples. *Journal of Educational Psychology*, *92*, 171–190.

- Jiménez-Barbero, J., Ruiz-Hernández, J., Llor-Zaragoza, L., PérezGarcía, M. & Llor-Esteban, B. (2016). Effectiveness of anti-bullying school programs: A meta-analysis, *Children and Youth Services Review*, *61*, 165-175.
- Jimerson, S. R., Anderson, G. E., & Whipple, A. D. (2002). Winning the battle and losing the war: Examining the relation between grade retention and dropping out of high school. *Psychology in the Schools*, *39*, 441-457.
- Jimerson, S., Egeland, B., Sroufe, L. A., & Carlson, B. (2000). A prospective longitudinal study of high school dropouts examining multiple predictors across development. *Journal of school psychology*, *38*, 525-549.
- Jordan, P. W. & Miller, R. (2017). *Who's in: Chronic absenteeism under the Every Student Succeeds Act*. Washington, DC: Future Ed.
- Kearney, C. A. (2008). An interdisciplinary model of school absenteeism in youth to inform professional practice and public policy. *Educational Psychology Review*, *20*, 257-282.
- Kearney, C. A., & Graczyk, P. (2014). A response to intervention model to promote school attendance and decrease school absenteeism. *Child & Youth Care Forum*, *43*, 1-25.
- King, J. C., Cummings, G. E., Stoddard, J., Readmond, B. X., Magder, L. S., Stong, M., ... & Ruff, E. (2005). A pilot study of the effectiveness of a school-based influenza vaccination program. *Pediatrics*, *116*, e868-e873.
- King, N. J., Heyne, D., Tonge, B., Gullone, E., & Ollendick, T. H. (2001). School refusal: Categorical diagnoses, functional analysis and treatment planning. *Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice*, *8*, 352-360.

- Lee, T., Cornell, D., Gregory, A., & Fan, X. (2011). High suspension schools and dropout rates for black and white students. *Education and Treatment of Children, 34*, 167-192.
- Levy, D. E., Winickoff, J. F., & Rigotti, N. A. (2011). School absenteeism among children living with smokers. *Pediatrics, 128*, 650-656.
- Licht, B. G., Gard, T., & Guardino, C. (1991). Modifying school attendance of special education high school students. *The Journal of Educational Research, 84*, 368-373.
- Lotyczewski, B. S. & Montes, G. (2012). *United Way after-school program evaluation*. Rochester, NY: Children's Institute.
- Mallett, C. A. (2016). The school-to-prison pipeline: A critical review of the punitive paradigm shift. *Child and adolescent social work journal, 33*, 15-24.
- Maynard, B. R., Heyne, D., Brendel, K. E., Bulanda, J. J., Thompson, A. M., & Pigott, T. D. (2018). Treatment for school refusal among children and adolescents: A systematic review and meta-analysis. *Research on Social Work Practice, 28*, 56-67.
- McDonald, N., Librera, S., & Deakin, E. (2004). Free transit for low-income youth: Experience in San Francisco Bay area, California. *Transportation Research Record: Journal of the Transportation Research Board, 1887*, 153-160.
- McPartland, J., Balfanz, R., Jordan, W., & Legters, N. (1998). Improving climate and achievement in a troubled urban high school through the talent development model. *Journal of Education for Students Placed at Risk, 3*, 337-361.
- Mendell, M. J., Eliseeva, E. A., Davies, M. M., Spears, M., Lobscheid, A., Fisk, W. J., & Apte, M. G. (2013). Association of classroom ventilation with reduced illness absence: a prospective study in California elementary schools. *Indoor Air, 23*, 515-528.

- Minnesota Department of Education. (2018a). *Implementing ESSA: Consistent attendance summary*. Retrieved from <https://education.mn.gov/MDE/dse/ESSA/Imp/MDE072612>.
- Minnesota Department of Education. (2018b). *Supporting indicators: Chronic absenteeism*. [Interactive data table]. Retrieved from <https://mn.gov/mmb/results-for-children/supporting-indicators/learning-environments/chronic-absenteeism.jsp>.
- Moodie, M., Haby, M., Galvin, L., Swinburn, B., & Carter, R. (2009). Cost-effectiveness of active transport for primary school children-Walking School Bus program. *International journal of behavioral nutrition and physical activity*, 6. Retrieved from <https://ijbnpa.biomedcentral.com/track/pdf/10.1186/1479-5868-6-63>.
- Murphy, J.M., Pagano, M.E., Nachmani, J., Sperling, P., Kane, S., & Kleinman, R.E. (1998). The relationship of school breakfast to psychosocial and academic functioning: cross-sectional and longitudinal observations in an inner-city school sample. *Archives of Pediatrics and Adolescent Medicine*, 152, 899-907.
- National Center for Safe Routes to School (2016). *Trends in walking and bicycling to school from 2007 to 2014*. Chapel Hill, NC: U.S. Department of Transportation Federal Highway Administration. Retrieved from www.saferoutesinfo.org.
- National Collaborative on Education and Health (2015). *Brief on chronic absenteeism and school health*. Chicago, IL: Author.
- National Sleep Foundation. (2014). 2014 Sleep in America© Poll: Sleep in the modern family. Arlington, VA: Author.

- Neild, R. C. & Balfanz, R. (2006). *Unfulfilled promise: The dimensions and characteristics of Philadelphia's dropout crisis, 2000–2005*, Philadelphia: Philadelphia Youth Transitions Collaborative.
- Nievar, A., Brown, A. L., Nathans, L., Chen, Q., & Martinez-Cantu, V. (2018). Home visiting among inner-city families: Links to early academic achievement. *Early Education and Development, 29*, 1115-1128.
- Owens, J. A., Belon, K., & Moss, P. (2010). Impact of delaying school start time on adolescent sleep, mood, and behavior. *Archives of pediatrics & adolescent medicine, 164*, 608-614.
- Pan L., Sherry B., Park S., & Blanck H.M. (2013). The association of obesity and school absenteeism attributed to illness or injury among adolescents in the United States, 2009. *Journal of Adolescent Health, 52*, 64–69.
- Pianalto, A. M., & Wall, M. C. (2016). *The effect of school based nursing on health related outcomes in children: A review of literature*. (Honors Research Project). Available from <https://ideaexchange.uakron.edu/>
- Plaspohl, S. S., Dixon, B. T., Streater, J. A., Hausauer, E. T., Newman, C. P., & Vogel, R. L. (2014). Impact of school flu vaccine program on student absences. *The Journal of School Nursing, 30*, 75-80.
- Pourat, N. & Nicholson G. (2009). *Unaffordable dental care is linked to frequent school absences*. Los Angeles, CA: UCLA Center for Health Policy Research.
- Rabito, F. A., Carlson, J. C., He, H., Werthmann, D., & Schal, C. (2017). A single intervention for cockroach control reduces cockroach exposure and asthma morbidity in children. *Journal of Allergy and Clinical Immunology, 140*, 565-570.

- Railsback, J. (2004). *Increasing student attendance: Strategies from research and practice*. Portland, OR: Northwest Regional Educational Laboratory NWREL.
- Reeves, D. B. (2008). Improving student attendance. *Educational Leadership*, 65, 90.
- Robert Wood Johnson Foundation. (2016). *The relationship between school attendance and health*. Princeton, NJ: Author.
- Roderick, M., Kelley-Kemple, T., Johnson, D. W., & Beechum, N. O. (2014). *Preventable failure: Improvements in long-term outcomes when high schools focused on the ninth grade year*. Chicago, IL: University of Chicago Consortium on Chicago School Research.
- Rodriguez, E., Rivera, D. A., Perloth, D., Becker, E., Wang, N. E., & Landau, M. (2013). School nurses' role in asthma management, school absenteeism, and cost savings: A demonstration project. *Journal of School Health*, 83, 842-850.
- Rogers, T., Duncan, T., Wolford, T., Ternovski, J., Subramanyam, S., & Reitano, A. (2017). *A randomized experiment using absenteeism information to “nudge” attendance* (REL 2017– 252). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Mid-Atlantic. Retrieved from <http://ies.ed.gov/ncee/edlabs>.
- Rogers, T. & Feller, A. (2016). *Reducing student absences at scale*. Working paper. Retrieved from http://scholar.harvard.edu/files/todd_rogers/files/02292016.pdf.
- Schneider, M. (2002), “Do school facilities affect academic outcomes?”, *National Clearinghouse for Educational Facilities*, Retrieved from www.edfacilities.org/pubs/outcomes.pdf

- Schwartz, D., Gorman, A. H., Nakamoto, J., & McKay, T. (2006). Popularity, social acceptance, and aggression in adolescent peer groups: Links with academic performance and school attendance. *Developmental Psychology, 42*, 1116-1127.
- Seelman, K. L., & Walker, M. B. (2018). Do anti-bullying laws reduce in-school victimization, fear-based absenteeism, and suicidality for lesbian, gay, bisexual, and questioning youth? *Journal of youth and adolescence*, Advance Online Publication, 1-19.
- Sheldon, S. B., & Epstein, J. L. (2004). Getting Students to School: Using Family and Community Involvement to Reduce Chronic Absenteeism. *School Community Journal, 14*, 39-56.
- Silverstein, M. D., Mair, J. E., Katusic, S. K., Wollan, P. C., O'connell, E. J., & Yunginger, J. W. (2001). School attendance and school performance: a population-based study of children with asthma. *The Journal of Pediatrics, 139*, 278-283.
- Sinclair, K. O., Bauman, S., Poteat, V. P., Koenig, B., & Russell, S. T. (2012). Cyber and bias-based harassment: Associations with academic, substance use, and mental health problems. *Journal of Adolescent Health, 50*, 521-523.
- Sinclair, M. F., Christenson, S. L., & Thurlow, M. L. (2005). Promoting school completion of urban secondary youth with emotional or behavioral disabilities. *Exceptional Children, 71*(4), 465-482.
- Skiba, R. (2010). Zero tolerance and alternative discipline strategies. *National Association of School Psychologists Communique, 39*, 28-30.
- Smerillo, N. E., Reynolds, A. J., Temple, J. A., & Ou, S. R. (2018). Chronic absence, eighth-grade achievement, and high school attainment in the Chicago Longitudinal Study. *Journal of School Psychology, 67*, 163-178.

- Smythe-Leistico, K. & Page, L. C. (2018). Connect-text: Leveraging text-message communication to mitigate chronic absenteeism and improve parental engagement in the earliest years of schooling. *Journal of Education for Students Placed at Risk*, 23, 139-152.
- Spain, A. K., Ehrlich, S. B., Cowhy, J. R., Dasgupta, D. K., Lockaby, T. (2018). *A community effort to support the transition from pre-k to kindergarten*. Chicago, IL: University of Chicago Consortium on Chicago School Research.
- Stempel, H., Cox-Martin, M., Bronsert, M., Dickinson, L. M., & Allison, M. A. (2017). Chronic school absenteeism and the role of adverse childhood experiences. *Academic pediatrics*, 17, 837-843.
- Sugai, G., Horner, R. H., Algozzine, R., Barrett, S., Lewis, T., Anderson, C., . . . Simonsen, B. (2010). *School-Wide Positive Behavior Support: Implementers' blueprint and self-assessment*. Eugene: University of Oregon
- Sutphen, R. D., Ford, J. P., & Flaherty, C. (2010). Truancy interventions: A review of the research literature. *Research on Social Work Practice*, 20, 161-171.
- Szilagyi, P. G., Schaffer, S., Rand, C. M., Vincelli, P., Eagan, A., Goldstein, N. P., ... & Yoo, B. K. (2016). School-located influenza vaccinations: A randomized trial. *Pediatrics*, e20161746.
- Taras, H. & Potts-Datema, W. (2005). Childhood asthma and student performance at school. *Journal of School Health*, 75, 296-312.
- Taylor, K. H. (2018, February 14). With clean clothes, this Detroit school sees a new attitude and improved attendance. *Chalkbeat*. Retrieved from <https://www.chalkbeat.org/posts/detroit/2018/02/14/with-clean-clothes-this-detroit-school-sees-a-new-attitude-and-improved-attendance/>.

- The Hamilton Project. (2018). *Chronic absence across the United States, 2015-16 school year*.
[Interactive map]. Retrieved from
http://www.hamiltonproject.org/charts/chronic_absence_across_the_united_states.
- Ttofi, M. & Farrington, D. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review, *Journal of Experimental Criminology*, 7, 27-56.
- Tomar, D. A. (2018). The key to school attendance: Washing machines? *The Best Schools*.
Retrieved from <https://thebestschools.org/magazine/school-attendance-washing-machines/>.
- U. S. Department of Education. (2016a). *Chronic absenteeism in the nation's schools*. Retrieved from <https://www2.ed.gov/datastory/chronicabsenteeism.html>.
- U. S. Department of Education. (2016b). *Non-regulatory guidance: Using evidence to strengthen education investments*. Retrieved from
<https://www2.ed.gov/policy/elsec/leg/essa/guidanceeusesinvestment.pdf>
- U.S. Departments of Education, Health and Human Services, Housing and Urban Development, and Justice. (2015). *Every Student, Every Day: A Community Toolkit to Address and Eliminate Chronic Absenteeism*, Washington, D.C.: Author.
- Van Eck, K., Johnson, S. R., Bettencourt, A., & Johnson, S. L. (2017). How school climate relates to chronic absence: A multi-level latent profile analysis. *Journal of School Psychology*, 61, 89-102.
- Varjas, K., Henrich, C. C., & Meyers, J. (2009). Urban middle school students' perceptions of bullying, cyberbullying, and school safety. *Journal of School Violence*, 8, 159-176

- Vavrus, F., & Cole, K. (2002). "I didn't do nothin'": The discursive construction of school suspension. *The Urban Review*, 34, 87-111
- Wahlstrom, K. (2002). Changing times: Findings from the first longitudinal study of later high school start times. *National Association of Secondary School Principals Bulletin*, 286, 3–21.
- Wahlstrom, K., Dretzke, B., Gordon, M., Peterson, K., Edwards, K., & Gdula, J. (2014). *Examining the impact of later high school start times on the health and academic performance of high school students: A multi-site study*. St. Paul, MN: University of Minnesota, Center for Applied Research and Educational Improvement.
- Wahlstrom, K. Sheldon, T. & Lewis, A. (2004). *21st Century Community Learning Centers: Pathways to progress, Saint Paul Public Schools: Final evaluation report*. St. Paul, MN: University of Minnesota, Center for Applied Research and Educational Improvement.
- Wheaton, A. G., Chapman, D. P., & Croft, J. B. (2016). School start times, sleep, behavioral, health, and academic outcomes: a review of the literature. *Journal of School Health*, 86, 363-381.
- Whirlpool. (2018). *Care Counts*. Retrieved from <https://carecounts.whirlpool.com/>.
- Wiseman, A. & Dawson, S. (2015). *Why do students miss school? The Central Texas absence reasons study*. E3 Alliance. Retrieved from <http://e3alliance.org/the-ctx-absence-reasons-study/>
- Zhang, M. (2003). Links between school absenteeism and child poverty. *Pastoral Care in Education*, 21, 10–17.



CENTER FOR APPLIED RESEARCH
AND EDUCATIONAL IMPROVEMENT
UNIVERSITY OF MINNESOTA

Center for Applied Research and Educational Improvement, University of Minnesota, 1954
Buford Ave. Suite 425, St. Paul MN 55108 • Phone: 612-624-0300 •
www.cehd.umn.edu/CAREI/ • Email: carei@umn.edu