## Why Do Students Miss School?



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## Executive Summary

## Overview

E3 Alliance uses objective data to drive collaborative change "cradle to career" in Central Texas. Recently the organization has focused its efforts on student attendance, an issue that has a "triple bottom line" impact on students, teachers, and school resources. In 2013, we conducted a study to collect detailed information about why students in Central Texas miss school. Our findings suggest that coordinated region-wide efforts to prevent acute illness can improve attendance for all students, while targeted interventions can help specific subpopulations of students to reduce absenteeism and experience greater academic success.

## Key Findings

- $72 \%$ of absences are "true absences," defined here as cases in which students are not in class, at another district campus, or participating in a school event.
- Acute illnesses such as colds or flu account for $48 \%$ of all true absences in the region. The next most common reasons were skipping, chronic illness and family emergencies.
- Absence frequency patterns were similar across two non-contiguous districts, and a spike in acute illness absences seen in both districts aligned with a spike in flu in the region.
- Although half of Central Texas students are low-income, they account for more than half of mental health, and non-medical absences such as family responsibilities, skipping, and logistical problems getting to school.
- Students at risk of dropping out are significantly more likely than their peers to miss school due to family responsibilities, logistical problems getting to school including transportation, skipping, out of school suspensions, and for legal reasons.
- Males and students who were ever English Language Learners are more likely than their peers to miss school due to skipping, out of school suspensions, and for legal reasons.
- Students in the $9^{\text {th }}$ and $12^{\text {th }}$ grades are more likely than students in other grades to skip class.


## Absence Reasons Study

## Study Context

## The Importance of Attendance

Previous research indicates a very strong relationship between student absences and academic performance (Balfanz \& Byrnes, 2012; Maynard et al., 2011). A 2012 E3 Alliance analysis of Central Texas student data from the 2009-2010 school year confirmed this pattern, finding that $9^{\text {th }}$ graders who are retained in grade because they did not receive enough credits to advance to $10^{\text {th }}$ grade with their peers had 4 times as many absences as their peers who advanced on time. Those $9^{\text {th }}$ graders who were retained were 10 times more likely to drop out of high school. Overall, high school students who missed 10 or more days of school on average across high school were three times more likely to drop out as those who missed five or fewer days of school.

In addition, significant national studies link student absenteeism, and especially chronic absenteeism, with a host of economic and community health challenges, including unemployment, family earnings, welfare and social services, delinquency, incarceration, obesity, and acute and chronic disease (Sheldon, 2007).

Although the benefits of consistent school attendance are clear, absenteeism is a significant problem in Central Texas. According to the E3 Alliance (2012) analysis:

- Central Texas students were absent 2.4 million days per year.
- Half of students had 6 or more absences per year. Those students contributed to $85 \%$ of all student absences.
- Central Texas students had more absences than the state average in every grade P-12, with significantly more absences in high school grades.
- On average, students have significantly more absences in high school than elementary or middle school; in fact, the average number of absences jumps by about 3 days, from 8 to 11 days, between $8^{\text {th }}$ and $9^{\text {th }}$ grades.
- On average, Central Texas low income students were more likely to be absent than in any other urban area of the state, including Dallas, Houston, San Antonio, and El Paso (see Figure 1).

Figure 1. Average Number of Absences in High School by Economic Status for Urban MSAs throughout Texas, 2010-11


Student absences are not just a problem because they are so closely linked with student achievement and health. Texas schools receive revenue from the state based on student attendance, so every absence costs a school nearly $\$ 40$ per day. The total financial impact compounds quickly. For example, the average comprehensive high school in the region loses $\$ 20,000$ every week from student absences! Across the entire region, E3 Alliance has calculated that increasing student attendance by just two percentage points, an average of three days per student per year, would increase revenue to Central Texas school districts by \$34 million annually.

## The Central Texas Student Attendance Campaign

In the spring of 2011 community leaders and school district superintendents in the Central Texas region asked E3 Alliance to lead a regional effort to increase student attendance, recognizing that attendance is a practice that families and community partners can directly impact to improve outcomes for students and schools. In response, E3 Alliance choreographed a major region-wide outreach campaign, Missing School Matters, with support from dozens of community and business partners. The campaign has promoted attendance via air, print, and social media, as well as through direct outreach to employers, neighborhood associations, nonprofits, and other groups. This campaign, together with focused efforts from districts and community partners, quickly started showing results, generating millions of dollars in savings to Central Texas schools since the campaign launch in 2011. For data and community action tools, see www.MissingSchoolMatters.org.

Despite these efforts, however, significant questions remained about how health and other community infrastructure factors relate to school attendance. In particular, why are students absent, with what frequency, and how might that information influence our decisions? Some reasons for student absences are likely impacted only by improving school, health, and community systems, rather than by simply raising awareness and changing social norms. For example, some students are absent due to chronic illness such as asthma that could be easily treated if a student had access to a clinic that could provide an inhaler. Other students who are
"skipping" could be better assisted through early intervention by district staff and truancy officers rather than waiting until chronic patterns develop. In cases like these, systems changes could be made if we understood which students were absent, where, and why. However, absenteeism reason data was sorely lacking, both regionally and nationally, inhibiting schools and communities from taking more effective action. Looking across the nation, a literature review was unable to find high-quality research as to why students were absent.

## Limitations of District Absence Data Collection

Currently, attendance data is collected on the state and the district level, both of which have significant limitations. State-level attendance data is comprised of just two codes: Present, which results in revenues for the district, and Absent, which does not. However, these simple labels mask a wide range of circumstances. Students counted as Present may have been physically in class, but they may also have been at a doctor appointment, visiting a college campus, or attending a band competition. Students marked Absent may have been ill, traveling with family, working, or skipping class. Because these codes include so many different behaviors, they are not useful for determining reasons for absences.

District-level data is more informative but still is not sufficiently specific. Staff enter into the district's tracking system whether a student is absent, present, or tardy. The attendance staff member tracks the absences and notes provided by parents to the degree staffing allows, then follows up with students or families to record the reason a student without a note missed class. Districts typically track more detailed reason codes to document why some students not in class were reported as present to the state. For example, Hays CISD uses 27 absence codes, some of which are very specific, e.g. EI = Excused due to ice or bad weather. However, others are used for multiple causes that are not at all similar, e.g. EA = Excused due to illness OR visit to family in deployed military OR in-school meeting for disciplinary action. Though these reasons are more detailed than those collected by the state, they are not detailed enough to allow the district or community to take actions to address student needs. This lack of detail is typical for other districts' reason codes as well, because the districts' primary purposes for collecting reason information is to determine whether a missed class qualifies as an absence under the Texas Education Code. Some districts additionally track whether the absence is excused or unexcused by district rules, but even this is labor-intensive for district staff.

Several other barriers to accurate, detailed attendance data collection exist, as well. Attendance reason codes are not standard across districts and in some cases across schools within a district. Even among schools using the same set of codes, the codes are not always applied consistently. Moreover, districts across the region use at least seven different information systems to track absence data, making it very difficult to share data and determine patterns beyond district boundaries. Finally, students and parents sometimes provide inaccurate reasons for absences in an effort to avoid the negative consequences that accompany unexcused absences. Thus, although state- and district-level attendance data offers some helpful information, it does not enable communities to identify and address the root causes of absences.

## Study Objectives

In 2013, E3 Alliance designed an Absence Reasons Study to fill the gaps in research and in district data collection by determining specific absence reason patterns for a representative subset of Central Texas students. These findings enabled E3 Alliance to predict the overall absence patterns of Central Texas students and identify actions that can be taken to improve both student attendance and community health. The study was intended not only to provide actionable information for specific neighborhoods and the region as a whole, but to serve as a seminal pilot study for similar efforts across the country. The study explored the following key questions:

- What are the different reasons for student absences and what is their prevalence for Central Texas students?
- Do different student demographic groups experience absence reasons at different rates?
- What other risk factors are associated with various absence reasons and might influence community policies and programs?


## Study Methodology

E3 Alliance used the attendance research literature and local, district, and community partners to define a detailed set of 26 reason codes to be tracked. Such codes included, for example, acute illness (colds, flu, etc.), asthma, dental appointments, and transportation issues. Categories of codes included medical, dental, family, transportation, travel, military, unexcused, and unknown reasons.

Nine schools, including 5 elementary, 2 middle and 2 high schools, from two different noncontiguous school districts (Hays CISD and Pflugerville ISD) participated in this study. The students from these schools were representative of the Central Texas student population which allowed us to generalize the results to the region; for example, both the sample and regional student population was $50 \%$ low income. To lessen effects of data fidelity issues, schools were chosen in part based on having absence tracking staff with significant history at the school and a strong relationship with local communities and families.

Absences were tracked for every student in these schools over a period of 8 weeks, from midJanuary to Mid-March in the spring of 2013.Teachers determined whether a student was present, absent, or tardy, and then school attendance personnel followed up to determine reason codes. E3 Alliance provided additional specific codes for tracking, as well as detailed training, so attendance personnel could collect the much more detailed information required to complete the study. To obtain this information, they followed up with parents by phone on all absences without documentation, ultimately obtaining reasons for about $80 \%$ of absences. Because of this extra work, school districts were provided with temporary staff to backfill and support attendance personnel during the study period.

Once the detailed reason codes were entered for the study period, districts provided studentlevel data sets to E3 Alliance and Children's Optimal Health for analysis. In addition to absence reason codes, the data included student demographics, at-risk factors such as teen pregnancy and homelessness, and home addresses for data-mapping. E3 Alliance analyzed the individual student data to determine patterns of absence reason types by date, grade, student
demographic group (including risk factors), and frequency, and examined patterns and potentially actionable findings. Children's Optimal Health used GIS mapping to map reason codes by block and neighborhood. At the conclusion of the study, a project advisory board of community health and absenteeism experts reviewed findings and recommended community actions.

## Results

E3 Alliance recorded 23,402 total absences for 8959 students during the study period at the sample schools. Of these, 16,811 , or $72 \%$, were "true absences," defined here as cases in which students are not in class, at another district campus, or participating in a school event. Through the diligent work of district personnel, reasons were obtained for $83 \%$ of the true absences (referred to as absences for the rest of the document).

## Overall Absence Patterns

Acute illness, a short-lived, typically contagious illness, such as cold, flu, or strep throat, was by far the most common reason for student absences, accounting for $48 \%$ of the absences in the sample (see Figure 2). We recognize this is a likely over count; if a family intentionally misrepresented an absence, they were likely to say "stomach virus" or something similar that would have been logged as acute illness. Skipping was the next most common cause, accounting for $5 \%$ of absences. For the same reason, we think this is an undercount. The next most common reason for absence was chronic illness, including asthma, followed by family emergencies and medical and dental appointments. If students brought a note from a health practitioner within 5 days of the appointment and was in school at the beginning or end of the day, this would not count as an absence by Texas code. In this study, all of these absences were considered true absences because they were not school related, even though a portion did not count against district funding.

Figure 2. Percent of Absences by Absence Reason for Top 10 Reasons


Overall, students were absent at remarkably similar rates over time across the two school districts (see Figure 3). The one exception was Thanksgiving week (Week 47) where one district took the whole week off and the other district did not and experienced a spike in absences for the week.

Figure 3. Absences by Week August to March for 2012-13 School Year


Even more surprising was that the peaks and valleys in absence rates that were so consistent appeared to be driven by acute illness absences. In fact, across the eight weeks of the study, the pattern of absence frequency was nearly identical to the pattern for the acute illness absence reason. Additionally, the acute illness absence rates were also remarkably similar across districts, with health directors from both districts reporting the highest absence peak on Week 4 due to a flu outbreak and the second highest peak in Week 8 due to stomach flu. Furthermore, the Week 4 reported flu outbreak coincides exactly with the secondary peak for flu-like illness doctor visits in Travis County as reported by Austin / Travis County Health and Human Services. (The primary peak occurred while students were on Winter Break during Weeks 52 and 1). Remarkably, these districts are not geographically contiguous; one district is north of Austin and the other is south. Thus it appears the study detected outbreaks of illness that impacted the entire Central Texas region.

## Absence Patterns among Sub-Populations

The study also found that some sub-populations of students are more likely than their peers to miss school for particular reasons (see Table 1). The table below displays the proportion of the total population that each sub-population accounts for, followed by the proportion of absences by reason accounted for by the sub-population. The highlighted numbers signify absence reasons that are more or less prevalent than what we would expect based on the proportion the sub-population accounts for out of the overall population.

Table 1. Absence Reasons by Student Sub-Population

|  | LowIncome | Male | Special Education | Ever English Language Learner | At-Risk ${ }^{\text {i }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Population | 50\% | 51\% | 11\% | 13\% | 40\% |
| Overall Absences | 53\% | 50\% | 13\% | 9\% | 47\% |
| Health-Related |  |  |  |  |  |
| Acute Illness | 49\% | 49\% | 12\% | 8\% | 42\% |
| Asthma | 56\% | 62\% | 11\% | 20\% | 57\% |
| Chronic Illness | 49\% | 55\% | 16\% | 5\% | 41\% |
| Preventative Medical Appt. | 64\% | 43\% | 12\% | 17\% | 47\% |
| Routine Dental Appt. | 58\% | 44\% | 12\% | 11\% | 46\% |
| Dental Treatment Appt. | 35\% | 39\% | 22\% | 4\% | 49\% |
| Mental Health | 63\% | 45\% | 24\% | 4\% | 38\% |
| Family-Related |  |  |  |  |  |
| Family Emergency | 55\% | 47\% | 15\% | 9\% | 46\% |
| Family Logistics | 65\% | 66\% | 11\% | 8\% | 61\% |
| Family Responsibility | 67\% | 42\% | 11\% | 16\% | 65\% |
| Student's Child Sick | 74\% | 37\% | 14\% | 2\% | 100\% |
| Other |  |  |  |  |  |
| Court/Legal Visit | 81\% | 64\% | 21\% | 8\% | 38\% |
| Skipping | 62\% | 61\% | 23\% | 24\% | 70\% |
| Suspension | 55\% | 80\% | 23\% | 12\% | 79\% |
| Transportation Issues | 71\% | 51\% | 8\% | 14\% | 72\% |
| Travel | 45\% | 52\% | 9\% | 6\% | 36\% |

${ }^{i}$ A student is considered at-risk by the Texas Education Association if one or more of the following factors apply: being assigned to an alternate education placement, custody of the Department of Protective Services, or residential placement within the district; being retained or expelled; failing a PK-3 readiness test, 2 or more core subjects, or a state assessment; having limited English proficiency; or being homeless, on parole or probation, pregnant or a parent, or a previous dropout.

Of particular concern is the over-representation of low-income students in non-medical absence categories (see Figure 4). Although low-income students comprised 50\% of the sample, they represented well over $50 \%$ of absences for reasons such as having a parenting or family responsibility, facing transportation or legal issues, and skipping. These areas represent obstacles to attendance that are particularly challenging for low-income families.

Figure 4. Percent of Absences by Reason for Low-Income Students


## Implications

These findings suggest that efforts to minimize acute illness have the potential to create a substantial positive impact on attendance for all students in Central Texas. Because acute illness is such a prominent cause of absence and affects every subgroup of students, reducing its frequency will likely result in far fewer missed school days.

On the other hand, relying solely on a one-size-fits-all approach to combating absenteeism will not effectively address all of the reasons why students miss class. For example, low-income students experience a disproportionate number of absences due to a variety of non-medically related absences, as well mental health issues. Students who are low-income, male, or ELL are significantly more likely to skip class than their peers. And at-risk students are absent at highly disproportionate rates for every reason displayed above. Patterns like these indicate that schools, families, and community service providers may need to focus interventions on specific groups of students in order to effectively reduce absenteeism.

## Going Forward

Based on these findings, E3 Alliance, schools districts, and partners have already initiated targeted interventions, such as no-cost, on-site flu immunization programs at 136 schools. Other supports are already in the works or being planned, including targeted supports for:

- Families and students at the transition from middle to high school
- Low income students with over-represented non-medically related absence reasons Students who are chronically absent at all grade levels, but especially in the elementary years, because early absenteeism predicts chronic absenteeism and poorer education outcomes in high school (E3 Alliance, 2015).

As of fall 2014, focused regional efforts have lowered overall student absences for the first time in two decades, despite continued increases in enrollment. These efforts have returned over \$20M in revenues to Central Texas schools and kept tens of thousands of students in school, able to learn. More focused and highly leveraged efforts based on the analysis of which students are absent and why should allow our region to have much greater impact on absenteeism and overall performance in the years to come.

## References

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The conclusions of this research do not necessarily reflect the opinions or official position of the Texas Education Agency, the Texas Higher Education Coordinating Board, or the State of Texas.

