Juvenile Welfare Board

Community Policy Brief

A Study of Student Absenteeism in Pinellas County

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INTRODUCTION

Success in America's education system is predicated on the assumption that students are in class every school day.[1] The reality, however, is that many students are absent a significant number of days in our nation every year. The term *absenteeism* refers to excused or unexcused absences from elementary or secondary (middle/high) school.[2] Definitions of chronic absenteeism vary across states. In Pinellas County Schools (PCS), students are recorded as absent if they are not in attendance for at least one half of the class periods during the school day.[3] Out-of-school suspensions also are recorded as unexcused absences. In addition, students are counted as absent after they accrue three episodes of unexcused tardiness or early sign outs.

Chronic absenteeism is typically based on total school days missed, regardless of whether the absences are excused or unexcused.[1] Chronic absenteeism is often defined as missing 10% or more of school days; this translates into approximately 18 days in an academic year. The Florida Department of Education reports the number and percentage of students who are absent 21 or more days in a school year.

Regardless of the definition of absenteeism or chronic absenteeism used, in general, students who are frequently absent are less likely to meet academic milestones and are less likely to graduate from high school within the standard four-year time period. Additionally, while all absences are important, unexcused absences appear to have a particularly negative effect on school achievement, especially math achievement.[4]

In recent years, proportionately more PCS students have been reported as absent from school 21 days or more than students in Florida's public schools as a whole. For example, in Academic Year (AY) 2013-14, there were 15,545 Pinellas County students who missed 21 days or more of school. This represents 12.8% of all K-12 students enrolled in public school. In contrast, the percentage of students throughout Florida who were absent 21 days or more of school in AY 2013-14 was 9.5%.[5] PCS has exceeded the statewide average for students absent 21 days or more for every academic year for the period 2009-10 through 2013-14.

Given the importance of regular attendance and the current rate of absenteeism in Pinellas County schools, the Juvenile Welfare Board of Pinellas County (JWB) and its partners embarked on a study to explore risk and protective factors associated with absenteeism.

CURRENT STRATEGIES TO IMPROVE ATTENDANCE

PCS has a number of intervention and prevention programs focused on improving school attendance. The programs are operated by the PCS and by other not-for-profits, some of which are funded, in whole or in part, by JWB. Some programs, such as *Child Study Teams*, are required by Florida statute. *Child Study Teams* assist students who meet certain criteria, for example having at least five unexcused absences.[6] Referral to this team results in a series of formal actions including meetings with the parent(s), changes to the learning environment, counseling, tutoring, attendance contracts, or referrals to other services. Ultimately, legal action can be taken to compel attendance.

PCS believes that actions to mitigate absences must be timelier than prescribed by the *Child Study Teams'* protocols. For this reason, PCS has implemented several prevention programs, such as *Early Classroom Intervention.* Teachers are instructed to call a child's home after two or three absences to engage parents in assuring their child's attendance at school. For this program, absence may be defined as a missed school day or a missed class, such as when a child misses a number of math classes.

PCS has recently implemented additional evidence-based programs to increase attendance. Two of the programs germane to this study are: *Check and Connect* and *Project Aware*. *Check and Connect* [7] seeks to improve student engagement at school through a mentoring relationship with students and parents. *Project Aware* is a federal *Substance Abuse and Mental Health Services Administration (SAMHSA)* grant awarded to PCS which provides training to teachers and staff in ten middle schools to identify and respond to individuals with mental illnesses.[8] PCS also participates in a second *SAMHSA* grant—titled *Florida AWARE*—which provides four System Navigators to coordinate wrap-around services to meet the needs of students and their families.[8] In addition, PCS is engaged in efforts to shift the use of out-of-school suspensions to in-school-suspensions in an effort to keep students connected to their school.

RISK FACTORS ASSOCIATED WITH ABSENTEEISM

There are numerous risk factors that are associated with increased absenteeism. These factors are best understood using an ecological model that reflects both the proximal (i.e., individual and family) and distal (i.e., school and neighborhood) contexts in which children live and interact (See Figure 1). [9] The following narrative provides a brief review of each domain of influence and its relevance to this study. With respect to place, to an overwhelming extent, regardless of language-defined cultural domain, "everything is related to everything else, but near things are more related than distant things."[10]

Student factors associated with absenteeism include physical health conditions, e.g., illness,[11,12] asthma,[13] chronic pain and headache,[14,15] obesity,[16] and behavioral health conditions such as anxiety, mood disorders, and substance abuse.[17]

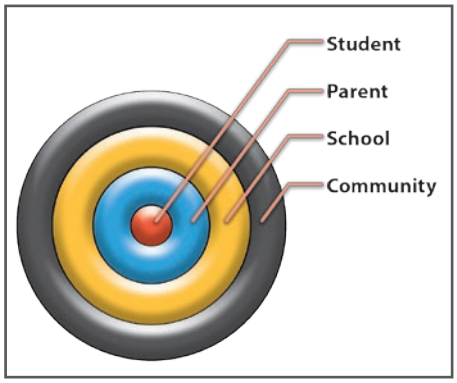


Figure 1. Nested Influences on Absenteeism

Mental illness impacts absenteeism and school performance in a negatively reinforcing cycle: the illness affects cognitive functioning, self-esteem, and behavior, which in turn affect learning and teacher or peer interactions. The more risk factors exist, the more likely the compounding effect and the more likely the student will seek to avoid pain and discomfort by being absent.[18] Anxiety and mood disorders can also result in conditions severe enough to warrant an involuntary admission to a crisis facility. Similarly, substance abuse and absenteeism are intertwined and can also be related to mental illness. In 2014, 4.9 % of middle school students and 23.3% of high school students in Pinellas County indicated that they had used marijuana or hashish in the last 30 days.[19]

Socioeconomic status has a significant effect on school performance. Belfanz & Byrnes note that: "In a nationally representative data set, chronic absence in kindergarten is associated with lower academic performance in first grade. The impact is two times greater for students from low-income families" (p.4). This deficit endures with the child continuing to show poor academic achievement in fifth grade relative to his or her peers.[20]

Parent factors contributing to absenteeism, like student factors, are multi-dimensional. A student may live in a family in which one or more of the following conditions exist: domestic violence, substance abuse, mental illness, income insecurity, medical problems, lack of parenting skills, or abuse and neglect.[21-23] As noted in a review of school absenteeism and school refusal behavior,[2] students who are mal-

treated are more likely to miss school than their peers.

Parents who are income constrained or have few social supports may have difficulty in ensuring that their child gets to school.[22] Absenteeism has also been associated with cultural factors, such as a family's degree of acculturation, expectations of child development, parenting norms, language barriers, and a suspicion of school administration.[24] Lastly, where parents are physically, mentally, or emotionally unable to care for their children, one of the children may be called upon to take on the role of caregiver.[25-27]

School climate has a moderate but significantly positive association with school attendance. "Schools with supportive teachers,consistently enforce attendance policies, have a welcoming climate, and have high expectations for student achievement are more likely to have higher attendance rates."[28] Two school factors that have a negative impact on school climate are larger class and school size[29] and bullying.[30] Schools in impoverished communities suffer from high levels of unemployment, high teacher migration, and low educational achievement.[31]

Community or neighborhood conditions manifest as social, environmental, geographic, and.or institutional influences. Studies have shown that chronic absenteeism strongly corresponds with areas where deep poverty is most entrenched in students' lives.[32] Environmental variances appear to produce marked differentials in physical and behavioral health. There are vast differences in exposure to violence across neighborhoods, and this undoubtedly produces important and durable psychological consequences for children.

A recent report[1] shows that half of all chronically absent students in Florida (52%) were concentrated in only 15 % of the schools, and between one-quarter and one-third of all chronically absent students (29 %) were concentrated in only 5 % of schools. The authors state: "the primary characteristic of students who miss lots of school is that they live in or near poverty."[1]

When examining factors that impact school outcomes, it is evident that spatial relationships exist at both the school and neighborhood level. To a great extent, characteristics of schools and communities are intrinsically related. It is important that efforts to address absenteeism not only identify factors intrinsic to the school, such as school climate, but neighborhood contexts as well.

METHODS

Analyses were conducted to address the following research questions:

1. Which domains have the greatest influence on absenteeism: child, parent and family, school or community?
2. Which variables in each domain are the greatest contributors to absenteeism?
3. Is there a temporal relationship between factors that contribute to absenteeism and episodes of absenteeism?
4. Are there clusters of absentee students in at-risk neighborhoods? If so, why?

The PCS Research and Accountability Department provided a custom data set containing information on a cohort of students who attended a Pinellas County school beginning in kindergarten in AY 2004-05 and continuing through the end of eighth grade (AY 2012-13). These data, together with additional student and parent information from JWB's Integrated Data System (IDS) were then matched to data at the Policy and Services Research Data Center (PSRDC) at the University of South Florida (USF). PSRDC data included information from Medicaid, Emergency Health Services, and the Departments of Juvenile Justice, Corrections, Law Enforcement, Substance Abuse and Mental Health, and Child Welfare. Students and parents were linked across all data systems using The Link King.[33] A full list of student, parent and school variables are listed in the Technical Appendix.

The Child Opportunity Index (COI) Score methodology[34] was used to establish a measure of relative opportunity across all Pinellas County census tracts. The Child Opportunity Index captures three domains of neighborhood opportunity: educational, health and environmental, and social and economic opportunities. All scales range from one to five, with five indicating greater opportunity. The Educational domain score consists of eight variables: the percentage of adults age 25 and older with a college education beyond high school; the percentage of students receiving free or reduced-price lunches; rates of fourth grade reading and math proficiency; the ratio of the number of children (three years and older) attending preschool or nursery school to the total number of three- and four-year-olds in the census tract; high school graduation rate; number of high-quality early childhood education providers; and proximity to early childhood education centers of any type. The Health and Environmental domain score is made up of six variables: retail healthy food index; proximity to toxic waste release sites; volume of nearby toxic release; proximity to parks and open spaces; housing vacancy rates; and proximity to health care facilities. The Social and Economic domain score is comprised of five variables: rates of neighborhood foreclosure; poverty; unemployment; public assistance; and

proximity to employment.

Advanced statistical modeling (i.e., latent growth curve) was then used to examine the effects of child, parent, school, and community characteristics on student absenteeism using Mplus 7.11[35]. Six models were built reflecting the two types of absences (i.e., excused and unexcused) and three types of contexts:

1) Child Opportunity Index;[34]
2) elementary school factors; and
3) middle school factors.

RESULTS

There were 9,288 children registered in kindergarten for the Academic Year (AY) 2004-05 in Pinellas County schools; 6,169 students comprised the study cohort; that is, they were present in AY 2004-05 and AY 2012-13 and at least one year between those years; 5,555 were present for all nine years. The cohort was 51.2% male; 60.4% White, 20.1% African-American, 19.5% other race; and 9.6% Hispanic. There were some significant differences between the demographics of the total children registered for kindergarten in AY 2004-05 and the students remaining in the study cohort, with the latter including more African-Americans that the overall student population, 20.1% versus 17.8%, respectively, X^2=13.43, $p < .001$. However, the magnitude of this difference should not impact the interpretation of results. Logistic Regression was conducted to verify there was indeed a relationship of absenteeism and academic achievement prior to moving on with further analyses. Florida Comprehensive Assessment Test (FCAT; FCAT 2.0 in later years) Math and Reading Sunshine State Standard scores were used to demonstrate a relationship between absences and achievement (odds ratio = 0.95, $p < .001$). In other words, students with higher absenteeism rates had lower scores in Reading and Math as measured by the FCAT and FCAT 2.0.

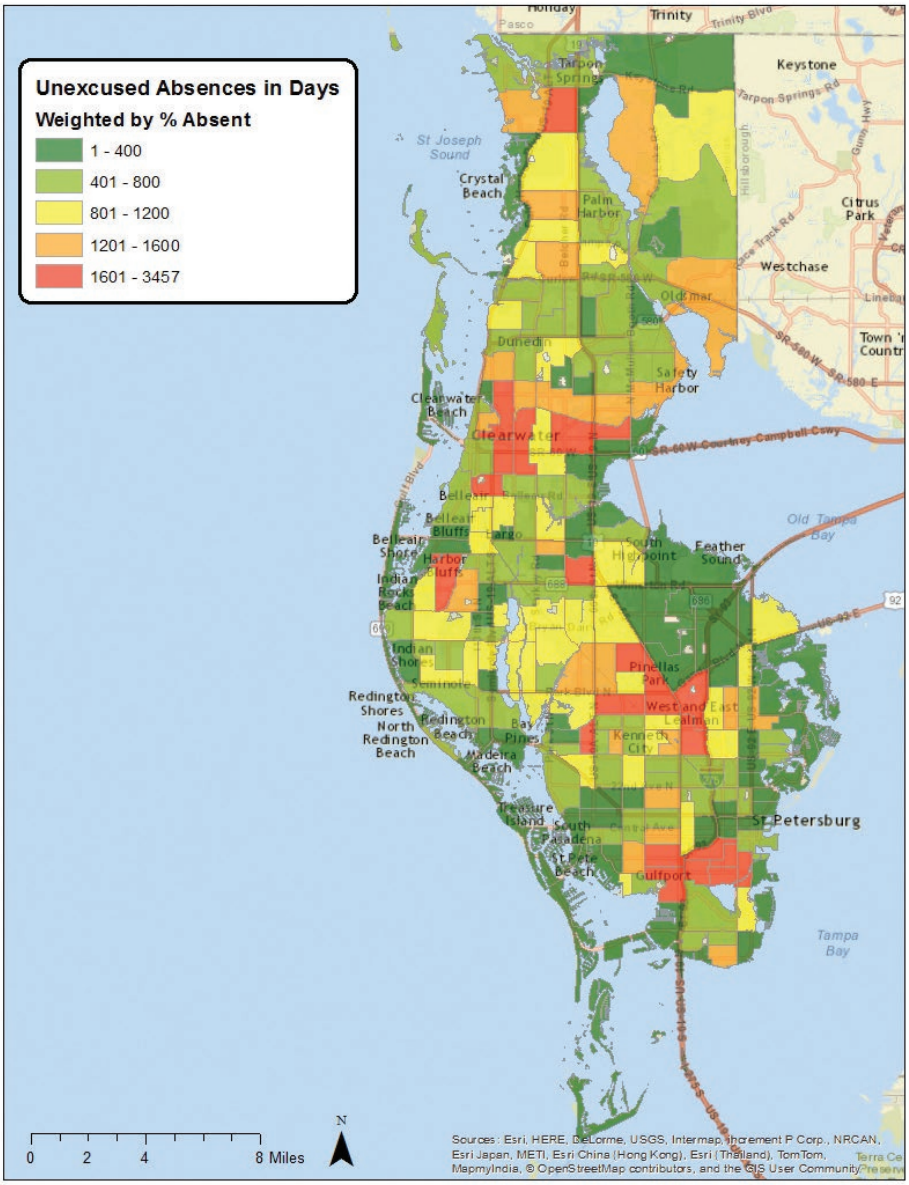


Figure 2. Student Absenteeism

Models were created by first looking at the association between each predictor and absenteeism (i.e., bivariate relationships). Predictors showing significant associations with absences were then added to the models and goodness of fit (i.e., how well the model fits the observations) were assessed. All six models showed good fit as indicated by the Steiger-Lind root mean square error of approximation[36] and the Bentler comparative fit index.[37]

Note: In the interest of making this paper more widely accessible, only the summary of the key finding are presented here. Table 1: Variables Used in the Study and Table 2: Relationship Between Proximal Predictors and Unexcused Absences are provided in Appendix A. Complete results from the statistical modeling are available from the Juvenile Welfare Board upon request.

While any absence is significant, this study looks at excused and unexcused absences separately to see if the type of absence was influenced by different factors. The analyses verifies that

assumption. Results for both types of absences are presented here, although an emphasis is put on presenting data about unexcused absences as those tend to be most problematic.

Unexcused Absences: Student demographics were associated with unexcused absenteeism. Being a child who is old for the grade, a proxy for retention, positively predicted levels of unexcused absenteeism, whereas minority status had an inverse association, that is, predicted a decreased number of unexcused absences over time. Other child characteristics, such as higher number of maltreatment investigations, eligibility for free/reduced lunch, positive medical history, and use of emergency medical services were associated with higher number of unexcused absences; however, only eligibility for free/reduced lunch was a significant predictor of an increase in unexcused absences over time. A history of involuntary mental health examinations and receipt of JWB funded services were associated with lower number of unexcused absences initially, but were related to an increased number of unexcused absences over time. Among parental characteristics, only severe mental illness was associated with higher number of unexcused absences; no effect on changes of unexcused absenteeism over time was observed. Child substance abuse problems and history of involuntary mental health examinations were the strongest predictors of increased number of unexcused absences over time. The distribution of unexcused absences in days by census tract is displayed in Figure 2.

The overall Child Opportunity Index Score was negatively associated with unexcused absenteeism. That is, lower Child Opportunity Index scores were associated higher number of unexcused absences. However, it was not associated with changes in the number of unexcused absences over time. The Education Opportunity (Figure 3) and Social and Economic Opportunity (Figure 4) domain scores were related to higher numbers of unexcused absences. Both domain scores were also found to be a significant predictor of increases in absences over time.

Of all elementary school characteristics included in the final model, only the average number of out-of-school suspensions and the average number of students with out-of-school suspensions were associated with unexcused absenteeism. Lower average number of out-of-school suspensions across schools was a significant predictor of higher number of unexcused absences. Conversely, higher average number of students with out-of-school suspensions across schools was associated with higher number of unexcused absences. These factors, however, had no effect on changes in the number of unexcused absences over time. For middle schools, none of the contextual variables used in this study were significantly associated with unexcused absences.

Excused Absences: In contrast to the findings in bivariate associations, male gender predicted a lower number of excused absences. Similarly, minority status had an inverse association, that is, predicted a lower number of excused absences and a decrease in the number of excused absences over time.

Other child characteristics, such as presence of developmental delays, having a disability, higher number of doctor visits, higher number of days spent in the hospital, use of emergency medical services and riding a school bus were associated with higher number of excused absences; however, only riding a school bus and presence of a developmental delay diagnosis were significant predictors of decreased excused absences over time. Receipt of JWB funded services was associated with lower number of excused absences initially and was related to increased number of excused absences over time. Among parental characteristics, only higher number of days spent in a hospital was predictive of higher number of excused absences. The number of days a parent spent in a hospital was not related to any changes in excused absences for a student over time. The distribution of excused absences in days by census tract depicts a very different pattern than Figure 2. Excused absences tend to cluster in areas of greater affluence. When **community characteristics** were examined, only the Educational Opportunity domain score was found to be significantly associated with excused absenteeism. Specifically, higher educational opportunity scores related to higher numbers of excused absences. However, higher educational opportunity scores were not associated with changes in absences over time.

Of the **elementary school characteristics** included in the final model, only the average number of students in a school was associated with excused absenteeism. Lower average number of students in a school was a significant predictor of higher number of excused absences; however, this variable did not have any effect on changes in the number of excused absences over time. No significant associations were found for **middle school characteristics** and excused absences.

Figure 3. Education Opportunity Domain Map: Unexcused

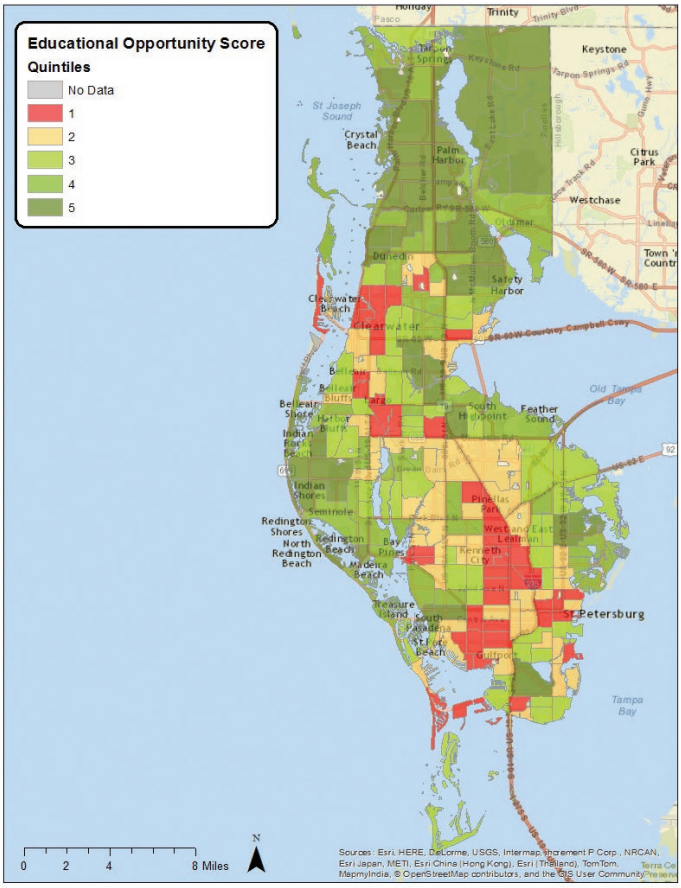
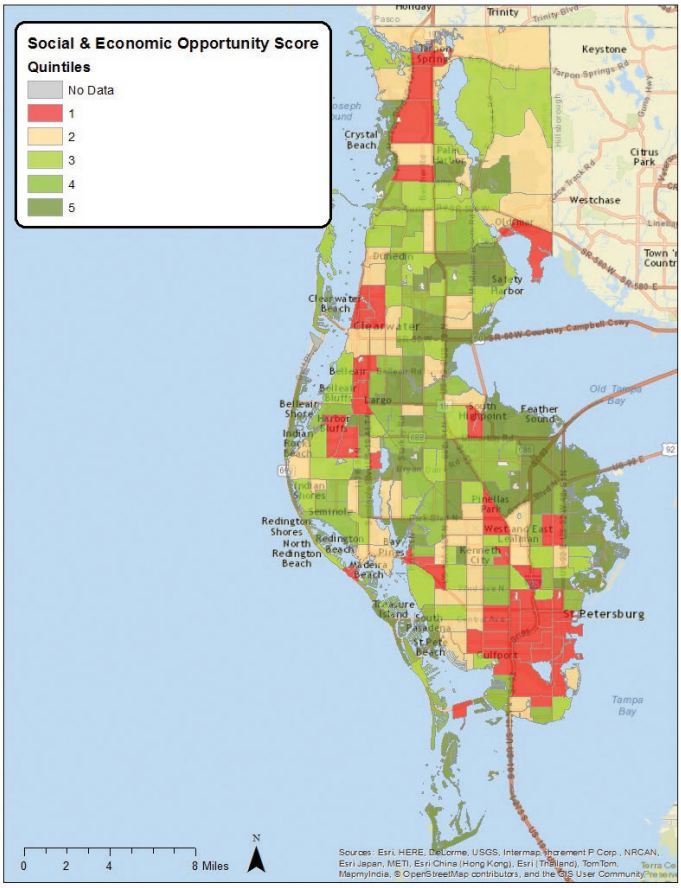


Figure 4. Social and Economic Opportunity Domain Map: Unexcused



CONCLUSIONS AND POLICY RECOMMENDATIONS

Overall results suggests that where a student lives has a profound effect on factors associated with absenteeism. In addition, factors proximal to the student, especially mental health issues, showed a significant impact on the number of absences. Many parental factors also support the association of proximal influences and absenteeism. There was little support, however, for school context impacting absenteeism.

There are some factors, however, that may influence why there was little support for school context on absenteeism in this study. Some variables were not readily available at the school level. For example, out-of-school suspensions were used as a proxy for the prevalence of bullying and other behavioral issues manifesting in schools. More specific measures may have yielded stronger associations between school context and absenteeism.

Results strongly support prevention and intervention strategies that include a place-based strategy, one that cuts across all domains contributing to absenteeism, from proximal to distal.

Three *Listening and Discovery Sessions* were held with local stakeholders to share the results of the study, vet the findings, and solicit input for policy recommendations. This resulted in the following recommendations:

Issue #1 - Shared Data Systems: Integrated Data Systems (IDS) link together data on individuals across administrative data sets, while simultaneously protecting privacy. They can provide holistic views of individual experiences within and across different service systems over time. Their primary purpose is to provide a more complete view of how services or combinations of services can help clients and residents. To learn more about IDS systems and how our community can benefit from a more robust system, see University of Pennsylvania's *Actionable Intelligence for Social Policy*.[38]

POLICY RECOMMENDATION:
Both USF and JWB have IDS backbones; however, challenges encountered during this study have illustrated the need to more rigorously

pursue a Pinellas system-wide IDS. Although some of the data were linked at PSRDC, many data sets required extensive work to acquire and code. It is recommended that the Administrative Forum of the Health and Behavioral Health Leadership Board establish a team to develop a set of critically important variables that would be linked as data became available and a mechanism to establish a Pinellas system-wide IDS that would provide our community with information, reported at an aggregate level, to inform systems planning.

Issue #2 - Socioeconomic Child Opportunity: National research indicates a strong link between attendance, school performance and low income status.[4,39-43] As discussed in this policy brief, low income students are more likely than higher income students to be impacted by adverse conditions in their families, their schools, and their communities.[44] A recent study by the National Bureau of Economic Research[45] solidified this link, finding that moving to a higher income neighborhood before the age of 13 had a significant impact on a child's future college attendance and earnings. The Socioeconomic Child Opportunity Map identifies Pinellas County census tracts in red that have high rates of foreclosures, poverty, unemployment and large numbers of the population on public assistance. These places correspond to previously identified at-risk areas in the Pinellas County report, *The Economic Impact of Poverty* produced in May 2012.[46]

POLICY RECOMMENDATION: We encourage public-private partnerships that are working to improve housing, transportation, and economic development to continue their efforts. It will continue to take the collective action of many groups working together to change the trajectory for these communities and the children who live in them. Efforts by local faith-based and neighborhood groups can be replicated in other parts of the county. An example is the Florida Dream Center's Adopt-A-Block program,[47] in which faith-based groups go door-to-door on a weekly basis in the Lealman corridor to assist residents, form relationships and build trust while growing their volunteer corps. This community has experienced the transformative power of an engaged citizenry.

Issue #3 - Educational Child Opportunity: The Educational Child Opportunity domain was found to be significant in predicting student absences over time. The recommendations in this section are targeted toward impacting factors addressed by that domain.

Issue #3 (a) - High Quality Early Education: A number of studies have suggested that the benefits of exposure to a quality early learning environment can have moderate to long-term benefits on a child's cognitive and social development.[48]

POLICY RECOMMENDATION: The community should continue to support quality early learning and development programs and efforts already underway. For example, the Early Learning Coalition of Pinellas County is offering technical assistance and coaching for quality improvement, financial incentives, career advice educational scholarships, training and wage supplements to help early learning centers achieve accreditation and re-accreditation. Non-profit providers such as the R'Club Child Care, Inc. provide quality early learning and development programs. It also is important to continue to educate the community about the value of quality early childhood education. The Early Learning Coalition aims to increase access to high-quality early childhood education settings for children living in areas of low educational opportunity, as identified in the Educational Opportunity domain.

Issue #3 (b) - School Age: Research suggests—and our study confirms—that absences follow a U-shaped pattern with high absenteeism beginning in kindergarten then gradually diminishing through third grade before it begins its gradual climb again starting in fifth grade.[1] Research also indicates that children who are chronically absent in kindergarten are more likely to have higher absences throughout their educational experience[20,49] This suggests that there are discrete periods of time for optimal interventions.[49]

POLICY RECOMMENDATIONS: There are a number of recommendations designed to strengthen school engagement broken down below by grade level:

i. Kindergarten through Third Grade: Engage the community in supporting the *Pinellas Campaign for Grade Level Reading*, which emphasizes school readiness, school attendance, reducing summer learning loss, family engagement, and reading proficiently by third grade.[50] Families who live in areas of low educational opportunity as identified in the Educational Opportunity domain could be the focus for these engagement efforts. As the Campaign focuses on children ages birth to third grade, and studies find that absenteeism begins to rise in fifth grade, it could be useful to develop strategies to improve attendance among older students (beginning in fourth grade and higher) separately from the activities of the Pinellas Campaign.

ii. Kindergarten: Interventions should focus on educating parents

about the importance of attendance as early as Voluntary Prekindergarten (VPK) or kindergarten. Participants in the *Listening and Discovery Sessions* suggested using the Pinellas County Schools' *Parent Engagement app* to deliver messages related to attendance, such as the rules about tardiness and absences.

iii. <u>Kindergarten</u>: Stronger coordination among early learning and kindergarten teachers can ease young children's transition from preschool to kindergarten. In the *Listening and Discovery Sessions*, Early Childhood Education providers indicated that they often have strong relationships with children and their families, due to low child to staff ratios. These providers stated they would like to be available to support the family as the child transitions into kindergarten. An outcome of this *Listening and Discovery Session* was a suggestion by the school system to have parents complete the school system's consent form. This will facilitate communication among preschool and kindergarten teachers and help facilitate a smoother transition for young children entering kindergarten. Early Childhood Education providers can continue to promote the importance of attendance in the early years and explore this opportunity to foster stronger parent-school linkages.

iv. <u>Elementary and Middle School</u>: Neighborhood Family Centers (NFCs) are placed-based and generally located in areas characterized by relatively low educational opportunity. NFC staff provide after-school programming and other literacy-based activities to children who attend these centers. Currently, efforts of the NFCs are focused on students' school grades. During a *Listening and Discovery Session*, the NFC Executive Directors indicated they would be willing to work with families to improve attendance as well, if they can get timely access to information about students' absences. Increasing staff's knowledge about students' performance can strengthen an already positive relationship of the NFCs with the school system that ultimately, benefits students and our community.

Issue #4 - Minority Status: As noted in the results section, being African-American or Hispanic is associated with higher levels of unexcused absences but lower levels of excused absences. This dichotomy in attendance patterns bears further examination. Several explanations for the finding about minority status were suggested by stakeholders during the *Listening and Discovery Sessions*. These ideas included issues of acculturation among Hispanic families, such as parents being unaware of the rules regarding attendance and expectations of older children to provide care for younger children, based on parents' own upbringing. Explanations related to African-American children in the *Listening and Discovery Sessions* generally related to the recent past history of African-American parents with the educational system. As an example, one African-American speaker stated that many African-American parents themselves had a negative school experience. The Tarpon Springs area of Pinellas County is moving to introduce a trauma-informed philosophy in its schools as one vehicle for mitigating this history.

<u>POLICY RECOMMENDATION:</u> While solutions across cultures might vary, the issue of why communities with higher concentrations of minorities are at higher risk for school absences should be explored further to develop concrete, culturally competent plans for engaging Hispanic and African-American parents and caregivers with the schools their children attend.

Issue #5 - Juvenile Welfare Board of Pinellas County: Participation in JWB funded services was associated with a change in the number of absences over time. This result suggests that JWB funded programs are, in fact, reaching children who are most in need of their services. It also means that JWB funded providers have an opportunity to reinforce, with children and their caregivers, the value of attending school every day. In addition, JWB hosts Communities of Learning, which bring together practitioners from funded programs who share an interest in common issues. JWB can cross-pollinate the topic of school attendance and the findings of this study within these Learning Communities to develop very direct strategies that will improve school attendance and enhance the programs it funds. Involvement with the child welfare and juvenile justice systems were also significant predictors of unexcused absences. Again, to the extent that JWB funds services that touch those systems or in their role as a leader and advocate for children, JWB can bring attention to the need to have children regularly in school.

<u>POLICY RECOMMENDATION:</u> Evaluate interventions that JWB funded programs could implement collectively to improve student attendance and engagement, particularly those programs that are associated with children in the juvenile justice and child welfare systems.

Issue #6 - Mental Health and Substance Abuse: Our analysis showed that mental health concerns—particularly those rising to the level that required an involuntary admission to a hospital—pose a significant risk to school attendance and performance. The literature confirmed these findings.[51] Recognizing the mental health needs of its students, PCS recently

sought and received two *SAMHSA* grants mentioned in a previous section.

POLICY RECOMMENDATIONS:
There are two recommendations:

i. Universal Screening: Universal screening is being conducted in ten middle schools for sixth through eighth-grade students, funded by a *SAMHSA* grant—this is an initial step toward systematic early identification of mental health and substance abuse problems. Research shows that school absenteeism starts to accelerate as early as fifth grade; however, it might be beneficial to provide this screening at a younger age. Once children are identified as having a mental health or substance abuse issue, it is important to ensure that interventions are available.

ii. Capacity: JWB should complete a review of the capacity of its children's mental health system to meet the existing needs and where possible, expand treatment options for children.

Issue #7 - Educating and Engaging Parents and other Caregivers: In the *Listening and Discovery Sessions*, stakeholders stated that many parents may not fully understand the school system's attendance rules. Stakeholders also spoke about the relationship between the teacher and the parent, stating that parents need to hear from the teacher when student behavior and academics are going well, so that there is a relationship already established should challenges arise. PCS has implemented a number of initiatives, such as the *Early Classroom Intervention* program and other grant-funded prevention programs which are designed to foster increased positive engagement among teachers and parents, and a deeper sense of connection of students and their schools.

POLICY RECOMMENDATIONS:
There are two recommendations:

i. Parental Engagement: PCS has undertaken a districtwide effort to strengthen its parental engagement and education. These efforts can be enhanced by a greater level of community support, such as through the *Early Readers, Future Leaders: Pinellas Campaign for Grade-Level Reading*, which focuses on family engagement as one of its key areas. One stakeholder suggested that the Parent Engagement app supported by PCS could be developed to provide information to parents about the importance of attendance, as well as information about attendance rules.

ii. Discipline: This report recognizes the efforts of PCS and encourages its continued work to use in-school suspensions instead of out-of-school suspensions.

iii. Taking Promising Practices to Scale: Lastly, to the extent that the current grant-funded initiatives show positive results, it could be worthwhile to take these programs to scale within PCS, particularly targeting the years where children are at risk of increased absences.

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APPENDIX A

Table 1: Variables Used in the Study

Number of Unexcused Absences
Number of Excused Absences
FCAT (Florida Comprehensive Assessment Test) Math
FCAT (Florida Comprehensive Assessment Test) Reading
Individual Level Predictors (Student/Parent)
Student Characteristics
Gender
Age
Black*
Other race*
Hispanic ethnicity*
Behavioral health diagnosis
Substance abuse
Presence of emotional disturbance
Attention deficit disorder with hyperactivity
Conduct disorder
Developmental delays
History of involuntary mental health examinations
Student outpatient doctor visits
Student inpatient days
At least one (1) year with disability
Chronic illness diagnosis
Presence of asthma
Positive medical history
Use of emergency medical system
Number of child maltreatment reports
Number of verified maltreatment reports
Most serious type of maltreatment**
Abuse
Neglect
Loss of a caregiver
Student involvement in domestic violence
Number of parents/caregivers
Number of resident addresses
Number of schools attended
Eligibility for free or reduced lunch
Riding a school bus at least one year
Involvement in the child welfare system
Involvement in the health and human services system
Receipt of JWB funded services
Involvement with the juvenile justice system
Involvement with the criminal justice system
Involvement with the justice system overall
Parent Characteristics
Arrest for child abuse
Severe mental illness diagnosis
Chronic illness diagnosis
Substance abuse service/diagnosis
The number of days in the hospital
The number of doctor visits
Death of at least one (1) parent
Domestic violence history
Involvement with the justice system
Incarceration
Elementary School Level Predictors
Percent of minorities
Average grade
Percent of students eligible for free or reduced lunch
Title I elementary school
Number of out-of-school suspensions
Number of students with out-of-school suspensions
Middle School Level Predictors
Percent of minorities
Percent of students eligible for free or reduced lunch
Number of students with suspensions
Number of students in a school
Community Level Predictors
Child Opportunity Index
Education opportunity domain
Health/environmental domain
Social/economic domain
*Caucasian was used as a reference category.
**Threatened harm was used as a reference category.

APPENDIX A

Table 2. Relationship Between Proximal Predictors and Unexcused Absences

Proximal Predictors (S = Student; P = Parent)	Level	Change
Gender (male)(S)	0.07	0.05
Age (S)	0.60*	0.12*
Black	3.84*	-0.23*
Hispanic (S)	1.30*	-0.18*
Other (S)	1.02*	-0.13*
Substance abuse (S)	1.23	1.24*
Emotional disturbance (S)	2.87*	0.12*
ADHD (S)	2.37*	0.27*
Conduct disorder (S)	3.93*	0.24*
Developmental delays (S)	3.49*	-0.04
Involuntary mental health examinations (S)	0.55	0.99*
Outpatient doctor visits (S)	0.06*	0.00
Inpatient days (physical health only) (S)	0.08*	-0.01
At least one (1) year with disability (S)	1.55*	-0.03
Chronic illness diagnosis (S)	2.31*	0.00
Presence of asthma (S)	3.03*	-0.04
Positive medical history (S)	3.32*	0.02
Use of emergency medical services (S)	2.94*	0.18*
Number of child maltreatment reports (S)	0.92*	0.07*
Number of verified maltreatment reports (S)	0.97*	0.07*
Type of maltreatment - Abuse (S)	2.14*	0.12*
Type of maltreatment - Neglect (S)	4.14*	-0.02
Loss of a caregiver (S)	1.57	-0.57
Domestic violence (S)	5.15*	0.27*
Number of parents/caregivers (S)	0.93*	0.03*
Number of resident addresses (S)	1.22*	0.00
Number of schools attended (S)	1.17*	0.01
Eligibility for free or reduced lunch (S)	3.09*	0.07*
Riding a school bus at least one year (S)	2.22*	0.00
Involvement in child welfare system	2.84*	0.13*
Involvement in health/human services (S)	3.10*	0.04
Juvenile justice system (S)	2.96*	0.71*
Criminal justice system (S)	1.31	0.58*
Juvenile Welfare Board (S)	0.80*	0.08*
Justice system overall (S)	2.81*	0.69*
Arrest for child abuse (P)	4.07*	0.58*
Severe mental illness diagnosis (P)	4.35*	0.31*
Chronic illness diagnosis (P)	4.44*	0.11
Substance abuse service/diagnosis (P)	4.64*	0.03
Number of days in the hospital (P)	0.19*	0.00
Number of doctor visits (P)	0.07*	0.01*
Death of at least one (1) parent (P)	6.65*	-0.54
Domestic violence history (P)	5.15*	0.27*
Involvement with the justice system (P)	5.46*	0.14*
Incarceration (P)	0.01*	0.00

Note: Factors with an asterisk are significant at $p < .05$. The *Level* (i.e., intercept) is the overall level of absenteeism and *Change* (ie., slope) shows an increase or decrease over time. A minus sign in front of *Change* statistic indicates a decrease in absences over time; no sign in front of the slope indicates an increase in absences over time. For example, age of the student is the first variable with an asterisk, and both the *Level* and *Change* are significantly associated with absenteeism. The *Level* is showing that age, or being retained in shool, is associated with a higher number of anbences. The *Change* is indicating age contributes to a slight increase in absenteeism over time. All **multivariate hierarchical models** showed good fit as indicated by the Steiger-Lind root mean square error of approximation[43] and the Bentler comparative fit index.[44]

APPENDIX B

ACRONYM REFERENCE

AY	Academic Year (school year)
COI	Childhood Opportunity Index
FCAT	Florida Comprehensive Assessment Test
FCAT 2.0	Florida Comprehensive Assessment Test – Version 2.0
IDS	Integrated Data System
IRB	Institutional Review Board
JWB	Juvenile Welfare Board of Pinellas County
PCS	Pinellas County Schools
PSDRC	Policy and Services Data Research Center
SAMHSA	Substance Abuse and Mental Health Services Administration
USF	University of South Florida

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For more information about

***Early Readers, Future Leaders: Pinellas Campaign for Grade-Level Reading* visit:**

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