# Investigating the Relationship Between a District's Tier 2 Attendance Intervention Program and Student Attendance Outcomes 

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[^0]Investigating the Relationship Between a District's Tier 2 Attendance Intervention Program and Student Attendance Outcomes

## A Dissertation Presented

by

## BRENDAN T. KEENAN, JR.

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

## DOCTOR OF EDUCATION

February 2015

College of Education
Educational Policy, Research and Administration
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# Investigating the Relationship Between a District's Tier 2 Attendance Intervention 

 Program and Student Attendance Outcomes
## A Dissertation Presented

by

## BRENDAN T. KEENAN, JR.

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Rebecca H. Woodland, Chair

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## DEDICATION

To the memory of my friend and mentor, Paul Gervais.

## ACKNOWLEDGMENTS

Just like it takes a village to raise a child, it took a team of my family, friends, colleagues, and advisors for me to complete this dissertation, and I am very grateful for the support I received from all of them.

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# ABSTRACT <br> INVESTIGATING THE RELATIONSHIP BETWEEN A DISTRICT'S TIER 2 ATTENDANCE INTERVENTION PROGRAM AND STUDENT ATTENDANCE OUTCOMES 

FEBRUARY 2015

BRENDAN T. KEENAN, JR., BA, ASSUMPTION COLLEGE<br>MSW, SALEM STATE COLLEGE<br>\section*{CAGS, UNIVERSITY OF MASSACHUSETTS AMHERST}

Directed by: Professor Rebecca H. Woodland
The study will investigate attendance-related outcomes for Fresh Start, a Tier 2 attendance intervention program (AIP) currently being used by the Wingate Public Schools in Massachusetts to collaboratively problem-solve with parents/guardians of elementary school students (Kindergarten through $6^{\text {th }}$ grade) who demonstrate chronic truancy issues. The Fresh Start program is utilized when the requesting school has been unable to make contact with the parent/guardian of a student in order to address the attendance problem via a school meeting. Membership of the Tier 2 AIP team includes school administrators, faculty, and staff, the parent/guardian, and a representative from a community agency that works directly with the parent/guardian in the collaborative problem solving process. In this study, demographic, student achievement, health, and academic services data were examined to investigate changes in attendance patterns following the AIP intervention.

## TABLE OF CONTENTS

Page
ACKNOWLEDGMENTS .....
ABSTRACT ..... vii
LIST OF TABLES ..... xi
LIST OF FIGURES ..... xiii
CHAPTER

1. INTRODUCTION ..... 1
Statement of the Problem ..... 5
Purpose of the Study ..... 7
Research Questions ..... 8
2. LITERATURE REVIEW ..... 9
Introduction ..... 9
Family Engagement ..... 10
Response to Intervention (RTI) and Collaborative Problem Solving ..... 17
RTI Meetings ..... 19
Innovative Approaches to Parent Meetings ..... 20
The Pollyanna Effect ..... 25
Collaborative Problem Solving ..... 26
Student Attendance and Truancy ..... 32
Prevalence and Impact ..... 33
Massachusetts Context ..... 35
Chronic Absenteeism ..... 37
School-Based Interventions ..... 40
3. METHODOLOGY AND RESEARCH DESIGN ..... 44
Statement of the Problem ..... 44
Research Questions and Hypotheses ..... 45
Context of the Study ..... 47
District Student Demographics ..... 47
District Attendance Initiatives ..... 50
District Elementary Attendance Policy ..... 54
Tier 2 Attendance Intervention Student Demographics ..... 58
Observations of Meetings ..... 64
Feedback from AIP Team Members and Principals ..... 68
Research Methodology and Procedures ..... 76
Objectives of the Study ..... 79
Participants/Stakeholders ..... 81
Procedures ..... 82
Data Analysis ..... 83
Ethical Considerations ..... 86
Internal and External Validity ..... 87
Delimitations ..... 88
Limitations ..... 89
Significance of the Study ..... 93
4. RESULTS ..... 95
Results for Research Question 1 ..... 95
Student and Family Demographics ..... 95
Students with Disabilities ..... 102
Student Mobility ..... 105
Student Achievement and Testing Results ..... 107
Results for Research Question 2 ..... 109
Results for Absences ..... 111
Results for Tardies. ..... 113
Results for Absences and Tardies ..... 115
Results for Research Question 3 ..... 119
Demographic Data Points Lacking Statistically Significant Differences ..... 120
Student Gender ..... 121
Students with Disabilities ..... 124
5. DISCUSSION AND CONCLUSIONS ..... 135
Program Referral Patterns ..... 135
CPS Meeting Impact on Attendance Outcomes ..... 143
Interactions Between Variables and Attendance Outcomes ..... 148
Implications for Policy and Practice ..... 151
Implications for Policy ..... 152
Implications for Practice. ..... 154
Implications for Future Research ..... 158
A New Approach: Individual Student Baseline Data ..... 159
Attendance Outcomes ..... 161
Intervening Variables ..... 162
Student Academic Achievement ..... 163
Professional Practice ..... 164
Conclusion ..... 166
APPENDICES
A: LOGIC MODEL ..... 169
B: RTI TEAM MEETING CHECKLIST - INITIAL VERSION ..... 171
C: PROOF OF RESEARCHER'S CITI CERTIFICATION ..... 173
D: PARENT INVITATION LETTER ..... 174
E: APPROVAL LETTER FROM SCHOOL DISTRICT ..... 175
F: DISTRICT ELEMENTARY ATTENDANCE POLICY ..... 176
G: MEETING OBSERVATION TOOL ..... 178
H: DATA AGREEMENT PLAN ..... 180
I: CORRELATIONAL TABLES FOR LEP STATUS (ABSENCES \& TARDIES) ..... 183
J: CORRELATIONAL TABLES FOR STUDENT'S FIRST LANGUAGE STATUS (ABSENCES \& TARDIES) ..... 184
K: CORRELATIONAL TABLES FOR STUDENT BIRTHPLACE (ABSENCES \& TARDIES) ..... 185
APPENDIX L: CORRELATIONAL TABLES FOR WHITE/NON-WHITE STUDENTS (ABSENCES \& TARDIES) ..... 186
M: CORRELATIONAL TABLES FOR FAMILY INCOME STATUS (ABSENCES \& TARDIES) ..... 187
N: SCATTERPLOTS OF MCAS (ELA AND MATH) AND POST INTERVENTION (20 DAYS AFTER) OUTCOMES FOR ABSENCES ..... 189
O: SCATTERPLOTS OF MAP READING AND MATH SCORES AND CHANGE IN ABSENCE PERCENTAGE 20 DAYS FOLLOWING THE INTERVENTION ..... 190
P: CORRELATIONAL TABLES OF MAP READING AND MATH SCORES ANDCHANGE IN ABSENCE PERCENTAGE 20 DAYS FOLLOWING THEINTERVENTION191
Q: SCATTERPLOTS OF MAP READING AND MATH SCORES AND CHANGE IN TARDY PERCENTAGE 20 DAYS FOLLOWING THE INTERVENTION ..... 192
R: CORRELATIONAL TABLES OF MAP READING AND MATH SCORES ANDCHANGE IN TARDY PERCENTAGE 20 DAYS FOLLOWING THEINTERVENTION193
REFERENCES ..... 194

## LIST OF TABLES

Table Page
1: Research Questions and Hypotheses ..... 46
2: Wingate Public Enrollment by Gender (2013-2014) ..... 47
3: Wingate Public Attendance Data (2013-2014) ..... 48
4: Outcome Evaluation Procedures ..... 79
5: Section of Program's Logic Model ..... 80
6: Baseline and Outcome Data Calculations ..... 85
7: Pre-Post School Years ..... 89
8: Adult Failure to Causes/51A's Filed for All Referred Families ..... 97
9: Student's First Language ..... 100
10: Student's Place of Birth ..... 102
11: Student's 504 Plan Status ..... 103
12: Student's Special Education Placement ..... 105
13: Student's Special Education Disability Category ..... 105
14: Current Student Enrollment ..... 107
15: MAP Reading Performance Level (June, 2014) ..... 108
16: MAP Math Performance Level (June, 2014) ..... 108
17: MCAS ELA and Math Growth Percentiles (April, 2013) ..... 109
18: Adult Failure to Causes/51A’s Filed for Families Remaining After Exclusion Criteria Applied ..... 111
19: Correlation of Change in Absence Percentage (20 days post and year after intervention) ..... 113
20: Correlation of Change in Tardy Percentage (20 days post and year after intervention) ..... 115
21: Aggregated Percentage Change in Absences \& Tardies (20 days following and Year 1) ..... 116
22: Average Change in Absence and Tardy Percentage by Reason for Referral ..... 117
23: Primary/Intermediate Grade Level Results (absences Year 1) Group Statistics for Independent Samples T-test ..... 118
24: Primary/Intermediate Grade Level and Absence \% Change Over Baseline Post Year 1 for Independent Samples T-test ..... 119
25: Student's Gender (absences) Group Statistics for Independent Samples T-test ..... 122
26: Student's Gender (absences) Independent Samples T-test Results ..... 122
27: Student's Gender (absences) Group Statistics for Independent Samples T-test ..... 123
28: Student's Gender (absences) Independent Samples T-test Results ..... 123
29: Student's Gender (absences Year 1) Group Statistics for Independent Samples T-test ..... 124
30: Student's Gender (absences Year 1) Independent Samples T-test Results ..... 124
31: Student Disability Status Group Statistics for Independent Samples T-test (Absence \% Change 20 Days Post Intervention) ..... 129
32: Student Disability Status Independent Samples T-test Results (Absence \% Change 20 Days Post Intervention) ..... 130
33: Student Disability Status Group Statistics for Independent Samples T-test (Tardy \% Change 20 Days Post Intervention) ..... 130
34: Student Disability Status Independent Samples T-test Results (Tardy \% Change 20 Days Post Intervention) ..... 131
35: Student Disability Status Group Statistics for Independent Samples T-test (Absence \% Change Year 1 Post Intervention) ..... 133
36: Student Disability Status Independent Samples T-test Results (Absence \% Change Year 1 Post Intervention) ..... 133
37: Student Disability Status Group Statistics for Independent Samples T-test (Tardy \% Change Year 1 Post Intervention) ..... 134
38: Student Disability Status Independent Samples T-test Results (Tardy \% Change Year 1 Post Intervention). ..... 134

## LIST OF FIGURES

Figure Page
1: Massachusetts Tiered System of Supports ..... 6
2: Study Outcomes and Indicators ..... 8
3: Literature Review Structure ..... 9
4: Response to Intervention (RTI) Triangle (School District 54, n.d.) ..... 18
5: Factors that May Influence Learning and Behavior ..... 29
6: Collaborative Problem Solving Process ..... 30
7: Problem Solving within a Tiered Service Delivery Model ..... 31
8: District Enrollment by Race/Ethnicity (2013-2014) ..... 49
9: District Student Indicators (2013-2014) ..... 50
10: Wingate Public Schools Tiered Attendance Interventions ..... 51
11: Attendance Matters Campaign Tips from District Website ..... 53
12: Wingate Elementary Schools with Tiered Attendance Interventions ..... 60
13: Comparative Student Race/Ethnicity ..... 61
14: Comparative Student SPED, Retention, and High Needs ..... 61
15: Comparative Student ELL Demographics ..... 62
16: Comparative Student Income Status ..... 62
17: Comparative Student Attendance Rate, 9+ Unexcused Absences ..... 63
18: Comparative Student Average Number of Days Absent (per student) ..... 64
19: Evaluation Cycle Diagram ..... 81
20: Reasons for Referral (all referrals) ..... 96
21: Parent Attendance for Intervention Meeting (all referrals) ..... 97
22: Grade Level at Time of Intervention (all referrals) ..... 97
23: Referrals and Interventions by School Year ..... 98
24: Average Attendance \% for Referrals and District ..... 99
25: Low-Income Status of Referred Students and District Average ..... 99
26: Referrals by Student Limited English Proficiency (LEP) Status ..... 100
27: Race/Ethnicity Percentages of Referred Students and District Average ..... 101
28: Special Education Student Percentage of Students and District Average ..... 102
29: Referrals by Special Education (SPED) Status (all referrals) ..... 103
30: Student's Special Education Level of Need (SPED students only) ..... 104
31: School at Time of Intervention (all referrals) ..... 106
32: Student Mobility Outcome (students who moved only) ..... 107
33: Overview of Cases Eliminated from Analysis ..... 110
34: Scatterplot of Change in Absence Percentage (20 days post and year after intervention) ..... 112
35: Scatterplot of Change in Tardy Percentage (20 days post and year after intervention) ..... 114
36: Reasons for Referral for Students with Attendance Improvement following Intervention ..... 117
37: Average Absence/Tardy Percentage Change for SPED/Non SPED Students ..... 126
38: Average Absence/Tardy Percentage Change for Students With and Without 504 Plans ..... 127

39: Average Absence/Tardy Percentage Change for Students With and Without a Disability ................................................................................................................. 128

## CHAPTER 1

## INTRODUCTION

"The invitation is about participation, not mere observation. We are not journeying in the universe but with the universe. We are not concerned about living in an evolving world but co-evolving with our world. We are parts of a whole, much greater than the sum of its parts, and yet within each part we are interconnected with the whole."

Priest and Social Psychologist, Diarmuid O'Murchu (2004)
Through my work in schools, I have been granted many titles, including Special Education Teacher, School Social Worker, and most recently, Assistant Principal. These titles have brought with them many responsibilities including lesson planning, case management, and faculty supervision, and evaluation. One responsibility that is too often overlooked is to promote the participation, or engagement, of families. This is not only the responsibility of the school social worker or school administration, who often have the most frequent contact with families of students, but instead is the responsibility of all school staff, including secretaries, instructional assistants, custodians, and anyone else working in a school that has contact with the families of students.

William James (1902) wrote, "A chain can be not stronger than the weakest link," and the same principle holds true when examining the role of school staff in promoting successful family engagement. It only takes one person working at a school to greatly diminish or even destroy a family's trust in staff at their child's school. I remember a school secretary I worked with who infuriated many parents when they came to the school for meetings. My colleagues and I would have to spend the first portion of each meeting listening to the angry complaints of parents about how she would ignore them, yell at them, and not follow through on requests they made for assistance. My goal in these interactions was to work to regain the parent's trust in the school. This example
shows the important role that each staff member plays in maintaining a positive relationship between school staff and the families of students, as well as the importance of ongoing two-way communication, namely through collaborative problem solving meeting, as a vehicle for resolving problems as they arise. Engaging families through relationship-building (interconnectedness) should be the primary goal of all school staff at all levels, especially when working with families who are marginalized due to their socioeconomic, ethnic, and cultural identity and status.

The evolving world has been steadily moving towards the inclusion of historically marginalized groups. In the United States, African-American slaves have been freed in the 1800's (Presidential Proclamations, 1863), people with disabilities have been given access to participate fully in both education and in activities of their choice (N/A, 1991, 2004), and most recently, homosexuals have been allowed to have equal rights through marriage (United States Supreme Court, 2013). The trend towards full participation and engagement of all people has been progressing steadily, and federal legislation has moved in this direction as well.

The participation of parents in their child's education has been supported since the 1960's through Title I legislation that resulted from the Civil Rights movement, and the research on models for enhancing family engagement in with their child's school is dynamic and ever growing. Given the vast contextual differences (e.g. socioeconomic, cultural) surrounding each public school district, there is not and should not be a "one size fits all" model for family engagement practices. The efforts school districts put forth to create relevant and effective family engagement models across the United States provide opportunities to not replicate, but to adapt family engagement practices to the
needs of the community surrounding the school. Family engagement efforts are understandably a grey area in education practice, and cannot be characterized in ways that are black and white. It is precisely this dynamic that causes family engagement research to be not only nebulous, but also dense, multi-layered, and contextually situated (J. L. Epstein et al., 2002; Gruman, Harachi, Abbott, Catalano, \& Fleming, 2008; K. Mapp, 2011; Mo \& Singh, 2008).

Globalization has made the world smaller and heightened the expectation for increased collaboration and teaming in many professional fields including public education. Schools in the United States must co-evolve with the communities surrounding them rather than impose the will of the school upon students and families. Schools can no longer close themselves off from their surrounding community and work in isolation as has been done in the past. Both low and high-performing schools stand to benefit from taking their family engagement practices to the next level of effectiveness for the sake of improving community relations and ongoing student achievement (Harris \& Goodall, 2008; Mallon, 2011).

School districts too often characterize family engagement as an "extra," or addon, initiative rather than as an embedded practice that overlaps with many other school practices (Henderson, Mapp, Johnson, \& Davies, 2007). One of the most crucial ways schools engage student families is through collaborative problem solving meetings (CPM). CPM's are characterized by the identification of mutual goals shared by meeting participants and working towards developing a plan to achieve the identified goal(s). CPM's can be used to address many different issues both in schools and other settings, including problematic student attendance and decreased family engagement (Bennett \&

Monsen, 2011; Greene, 2009, 2011; Montgomery County Board of Education, 2008; N/A, 2012). I have been involved in many CPM's as facilitator, participant, and observer, and I have always been struck not only by the wide variation in not only the effectiveness (outcomes) of these meetings, but also by the frequent lack of coordination and strategic planning related to family meetings. In my experience, the goal(s) of these meetings are often not clearly stated, causing anxiety and confusion in parents, thereby decreasing the likelihood of a positive resolution to the presenting problem, and decreasing the engagement of the impacted family. As school staff and administration, we owe the parents of students many opportunities to truly partner with the school around their child's school performance, and collaborative problem solving meetings are a key opportunity to do so.

When I first began my professional career as a school social worker, I was honestly a little confused as to why I was given the title of "Supervisor of Attendance." At the time, I naively believed that this role consisted of simply reviewing lists of chronically absent and/or tardy students, calling their homes to convey the message, "You need to get your kid to school every day on-time, OK?" and moving onto the next student in the list. I used to say that virtually anyone could supervise student attendance, and that it did not require a college degree to be effective in this role. I realize now that I was wrong to oversimplify attendance interventions, and that problems with student attendance are usually a symptom of deeper areas of difficulty in the family system, such as poverty, neglect or abuse, crisis, and significant family stress. These risk factors are directly linked to the role of the school social worker, and to an increasing degree, to the roles of teachers, administrators, and other staff in U.S. public schools (Allen-Meares,

Montgomery, \& Kim, 2013; Bye, Shepard, Patridge, \& Alvarez, 2009; Huffman, 2013; Teasley, 2004). The sentiment often expressed by teachers especially in urban and/or high poverty school districts is that they have become social workers/counselors as much as teachers is reflective of the more comprehensive approach to teaching and learning that is essential to reaching students and families who present with significant risk factors.

It is my hope that this study will be useful to K-12 educational leaders across the United States, especially those in high-need districts with high levels of poverty and other related risk factors. If we as teachers, administrators, and school staff can simply go back to the basics of working with families of students, namely through building positive relationships and integrating family engagement efforts into the meetings we are already asking parents to attend (e.g. CPM's aimed at resolving problematic student attendance patterns), we will be more likely to realize quick wins, immediate short-term success related to student attendance, and secondarily, to increase family engagement.

## Statement of the Problem

Students who regularly attend school are more likely to achieve both short and long-term success in school. There is currently a lack of systemic tiered interventions at the school level to improve student attendance in collaboration with their parents/guardians. At the elementary level, the responsibility for the root causes of attendance problems are held primarily by the parent/guardian, and it is crucial that school personnel successfully engage students' families to collaboratively address attendance concerns. When attempts to communicate with parents of students (e.g. letters, phone calls, meeting invitations, etc.) have failed, schools often take the families
to court (a Tier 3 intervention) in an attempt to remedy the presenting attendance problem. The court filing often further strains the relationship between educators/administrators and a student's family members, causing parents/guardians to become increasingly disengaged with their child's school (Garcia \& Festin, 2012; Haight, Chapman, Hendron, Loftis, \& Kearney, 2014; Hendricks, Sale, Evans, McKinley, \& DeLozier Carter, 2010; Skola \& Williamson, 2012).

Response to Intervention (RTI) is a systematic approach for monitoring student academic progress through data collection and analysis (Jennings, n.d.; Kelleher, 2011). The tiered approach inherent in the RTI model outlines three levels of intervention to respond to student needs, and is the model is typically applied to student academic and/or social-emotional needs. The RTI model has only recently been applied to efforts to address problematic attendance patterns in students. The RTI model overlaps with the Massachusetts Tiered System of Support (MTSS) that is being adopted increasingly by school districts to frame district initiatives (see Figure 1) (Massachusetts Department of Elementary and Secondary Education, n.d.-b).


Figure 1: Massachusetts Tiered System of Supports

Currently, there is a very limited body of research related to both the tiered attendance interventions themselves and the impact of tiered interventions on student attendance outcomes. This lack of research represents a significant gap in the scholarly literature related to tiered attendance interventions. When schools intervene early (e.g. elementary school years), there is a greater likelihood that both short and long-term attendance outcomes will be improved (Chang \& Jordan, 2011). For these reasons, it is crucial that tiered attendance interventions programs are evaluated in terms of their espoused activities (e.g. interventions), as well as their short and long-term outcomes in order to delineate best practices that can be tailored to the specific needs of each school community.

## Purpose of the Study

The study will examine the attendance outcomes for a Tier 2 attendance intervention program currently being used by the Wingate Public Schools to collaboratively problem-solve with parents/guardians of elementary school students (Kindergarten through $6^{\text {th }}$ grade). The program is utilized when the requesting school has been unable to make contact with the parent/guardian of the student in order to address the attendance problem via a school meeting. The team includes school administration, faculty, and staff, the parent/guardian, and a representative from a community agency to work specifically with the parent/guardian in a support capacity. Demographic, student achievement, health, and academic services data will be used (see Figure 2) to determine changes in attendance outcomes following the intervention in the hopes of identifying trends/patterns within the dataset.


Figure 2: Study Outcomes and Indicators

## Research Questions

The study aims to answer the following research questions:

1. Who is referred to and served by the AIP?
2. For students who showed an initial attendance improvement following the intervention, is there sustained improvement in the following school year?
3. For students who showed an initial attendance improvement following the intervention, are there differences between demographic subgroups?

## CHAPTER 2

## LITERATURE REVIEW

## Introduction

Family engagement is an effort that is often viewed by public school districts as an ancillary initiative that is added on rather than incorporated into existing district programs. Student attendance in the elementary school years is primarily the responsibility of their parent/guardian, and it is therefore crucial that those parents/guardians are effectively engaged in order to work towards solving attendance problems collaboratively. The following literature review (see Error! Reference source not found.) will include relevant scholarly literature related to family engagement, the Common Core, and school attendance/truancy.


Figure 3: Literature Review Structure

## Family Engagement

Family engagement with public schools in the United States is a constantly evolving body of research and related practices. The evolution of family engagement has moved from viewing family engagement as an add-on activity to a more integrated set of practices that occur within the regular routines of schools. The language used to describe the engagement of families with public schools in the United States has changed since involvement of parents was prioritized in the early to mid 1960's. The context of the Civil Rights Movement and the War on Poverty as well as the Title I legislation that arose out of these concurrent movements shaped the way in which family engagement was rolled-out as well as the way it has evolved over time.

The Economic Opportunity Act of 1964 (EOA), a critical component of President Lyndon B. Johnson's War on Poverty, shaped the philosophical backing for what would later become an underpinning in family engagement research. The spirit of the law sought to alleviate the negative impact that decreased educational opportunities had on people of low-income status by creating supplemental programs such as Job Corps and Head Start. Sargent Shriver, an American statesman, activist, and member of the Kennedy family, oversaw this effort through the Office of Economic Opportunity, and emphasized that related targeted groups of citizens should have access to "maximum feasible participation."

The Elementary and Secondary Education Act (ESEA) of 1965 marked the beginning of Title I programs in the United States, but parent involvement was not mentioned in the original document (Pastrevich, 1991). The pressure to include parent
involvement as a priority in Title I funding began in 1966 when federal officials began talking to local school districts about increasing efforts to involve parents with their child's public school education (K. Mapp, 2011). In 1967, the United States Office of Education (USOE) required that local school districts generate activities and services geared towards increasing parent involvement (Mizell, 1980).

One component of the Economic Opportunity Act relevant to the development of a framework for understanding family engagement was The Community Action Program (CAP). The purpose of these CAP's was to address the root causes of poverty, as well as to remedy the disadvantages that arise from poverty for poor families:

The family welfare system, including the public welfare department, school social workers and the private agencies that try to strengthen family life by providing such services as counseling, casework, budgeting, and spending techniques, and income maintenance through public assistance (N/A, 1964, p. 71).

The language used in the "Community Action Program Guide" (1965) sets the stage for what would later become crucial components for successful family engagement with public schools in the United States. The idea that strengthening communities, especially those impacted by the risk factors of cultural marginalization or poverty, became a priority area, and one that would have a lasting impact on the field of community empowerment.

The long-range objective of every community action program is to effect a permanent increase in the capacity of individuals, groups, and communities afflicted by poverty to deal effectively with their own problems so that they need no further assistance (Office of Economic Opportunity, 1965).

The emphasis on capacity building as well as creating and developing partnerships to support the success of marginalized families was a revolutionary idea in the 1960's in the United States. The decision in Brown v. Board of Education (U.S. Supreme Court, 1954)
occurred only ten-years before the Economic Opportunity Act was passed, and represented the symbolic start of the inclusion of black students in public education in the United States, overturning the Plessy v. Ferguson decision of 1896 (U.S. Supreme Court, 1896).

The presidency of Ronald Reagan has been characterized as an era of policy deregulation. This deregulatory trend caused the virtual elimination of mandatory provisions for parental involvement, moving instead towards flexibility at the state-level to determine the best approaches to involve parents in public schools. The Education Consolidation and Improvement Act (P.L. 97-35) arose out of this movement, and Title I was then referred to as Chapter 1 (Sunderman, 2009). Prior to the deregulation, parent involvement activities were described with great specificity and public school districts were expected to include parents meaningfully in making key decisions at the schoollevel. The Consolidation and Improvement Act now only required school districts to hold a meeting once a year to give parents information about Title I programs.

A Congressional report (1985) indicated that the weakened regulations related to parent involvement negatively impacted parent involvement nationwide, especially with regards to mobilizing parents to band together and advocate for the needs of their family. The loosening of parent involvement policies under the Reagan administration lead to an unhealthy stasis in public schools due to the absence of the influence of parents in many key decisions. The concept of sharing power through engaging in decision-making with student's parents (e.g. collaborative problem solving meetings) is often viewed as a threat to the traditional power structures in which schools operate. Historically, schools held the vast majority of the power in educational decision-making, while parents held little or no
power. The era of deregulation under Reagan reestablished the traditional power structures between schools and families, turning back the clock on the family engagement efforts made to date.

The Improving America’s Schools Act of 1994 (IASA) under President Clinton represented a significant step forward for parent involvement, but downplayed the impact that poverty had on parents' ability to engage with the school. The ESEA and Title I legislation was framed as an anti-poverty, civil rights bill aimed at mitigating the impact of poverty on the involvement of parents in the school of their children. The IASA focused on aligning standards and assessments, and developing sanctions for schools that repeatedly failed to meet state standards (Frankenberg \& Orfield, 2007).

Under IASA, there was a new requirement for schools to develop parent involvement plans that were accessible by parents. Three key components of the plans under IASA were:

1) The input of parents in shaping school-level policies,
2) Shared responsibility for bolstering student performance, 3) Building increased capacity for parent involvement (Moles \& Fege, 2011, p. 7).

The Act also required schools to provide educational materials and information sessions for school faculty about partnering with families. The IASA was the most prescriptive federal delineation of parent involvement to date, and gave much less leeway to school districts for how their Title I monies were spent with a greater emphasis placed on promoting parent engagement through focused initiatives.

The No Child Left Behind Act of 2001 (NCLB) carried on the mandates set forth by the IASA, and offered the first definition of parent involvement and the following: "The participation of parents in regular, two-way, and meaningful communication
involving student academic learning and other school activities" ("No Child Left Behind (NCLB) Act of 2001," 2002). The definition given through NCLB was vague enough to allow flexibility to LEA's to operationalize it as they saw fit depending on their understanding of needs in the district. Parent-school meetings, especially ones using a collaborative problem solving approach, are representative of the regular, two-way, meaningful communication about academic learning described in the NCLB definition of family engagement, as well as shared responsibility.

NCLB provided more specificity in required activities than previous legislation, and included provisions about holding school meetings at times that were convenient for parents. Academic achievement was framed as a shared responsibility in NCLB between school staff and the parents of students, and continued to use the school-parent compact (formal written agreement between school and home) as a vehicle to delineate the terms of the partnership.

Parent involvement both in and out of school helps to enhance a child's overall self-esteem, improve the quality of the child's relationship with his/her parent, and promote the development of positive attitudes about school in the child. Additionally, when parents of students are positively involved in their child's education, teachers are able to approach instruction with increased confidence, modify their instructional style to meet student needs more readily, and work more collaboratively with the surrounding community (Marschall, 2006). The two-way interaction that occurs between the school and student's families is mutually-beneficial, in that teachers experience the increased academic success in their students, and parents enjoy these gains as well by experiencing increased confidence as a parent and feelings of pride about their child.

Family engagement in and of itself brings with it a host of protective factors that also increase student achievement, and family engagement activities are not performed in isolation or in a controlled environment. For these reasons, a causal relationship cannot be assumed between increased student academic achievement, both short and long-term, and increased family engagement levels (California Department of Education, 2011). Family engagement with school may be indicative of a larger trend towards healthy nurturing patterns, opportunities for the development of early literacy skills, increased housing/financial stability, and other factors that increase the likelihood for academic success. Despite difficulty establishing a causal relationship between family engagement and academic achievement, the correlation between the two is strong and worthy of increased research and scholarly attention.

The positive impact that increased family engagement has on student achievement has been shown to be constant regardless of the demographic profile of the student's family (age, ethnicity, sex, SES, measures of achievement) (Englund, Luckner, Whaley, \& Egeland, 2004). Family engagement has been shown to decrease grade retention ("staying back") and frequency of aggressive and disruptive student behaviors (Bakker, Denessen, \& Bruz-Laeven, 2007). The impact of family engagement on negative student behavior holds the potential to not only increase achievement for that student, but also for all of the students in the classroom given the extreme disruption that aggressive or otherwise disruptive behaviors cause in the learning environment.

One study indicates that both the parents' relationship and involvement with the school increase student academic performance. As logic would dictate, highly involved parents motivate their child to not only attend school more regularly, but also to be
attentive to and complete academic tasks more so than lesser-involved parents, leading to higher achievement. (Mo \& Singh, 2008). Students taking part in home reading activities have been shown to have increased reading comprehension skills when compared to a control group (Serpell, 1997; Serpell et al., 1997).

Student attendance has also been positively-correlated with higher levels of family engagement, increasing the student's exposure to academic instruction, and increasing the likelihood for academic success (Constantino, 2007). As more is learned through research about the impact of family engagement on student academic achievement, it will be important to identify with greater specificity the key elements of family engagement practice to increase positive outcomes for students in school.

Research supports the importance of fostering positive relationships between families and school administration, faculty, and staff as an important means to promote academic achievement. One study conducted by leading Harvard University researcher and family engagement expert, Karen Mapp, at Patrick O'Hearn Elementary School in Boston, MA, used interviews with families to help determine how a diverse, urban school could boast $90 \%$ parent involvement rates. Two important findings emerged as a result of this study. The first was that every staff member, including custodians and other noninstructional staff (e.g. secretaries), worked to connect with parents through activities designed to welcome families. The second finding discovered through interviews with parents was that all school staff is trained to respect any level of involvement exhibited by a student's family no matter how small. These two reasons were cited as the primary driving forces behind establishing and maintaining a high family involvement rate (K. L. Mapp, 1997).

A different study of two low-income elementary schools in New Haven, CT supported the idea of utilizing different degrees of family involvement, all of which allow for parents to be meaningfully involved with their child's education. This study also found that family engagement efforts are most effective in contributing to increased student achievement when they are embedded in an ecological approach to school improvement. In other words, family engagement efforts must not be performed in isolation, but instead within a framework of related practices that support their success (Comer \& Haynes, 1991). This framework may include community partnerships that support family engagement initiatives, as well as instructional practices that open the possibility of family involvement.

Finally, longitudinal studies have been designed to determine if different kinds of parent involvement contribute to increased academic achievement. One study of over $21,0008^{\text {th }}$ grade students determined that parental aspirations for their child contributed significantly to their child's academic achievement when socioeconomic status and prior student achievement were controlled (Trivette \& Anderson, 1995). Another study of over $3,0007^{\text {th }}$ grade students determined that parents who were more committed to their child's education experienced higher achievement levels in science (Wang \& Wildman, 1995). This review of a portion of the empirical studies conducted delineate the strong links between increased family engagement and accelerated school achievement that cannot be explained away as being situational or episodic.

## Response to Intervention (RTI) and Collaborative Problem Solving

Response to Intervention (RTI) is a framework that aims to provide researchbased, high-quality instruction and is centered around the needs of individual students,
using data to regularly monitor the progress of students not making sufficient academic and/or behavioral progress (see Figure 4). The three-tiered system delineated by RTI aligns with the Common Core movement nationally and in Massachusetts specifically (Common Core State Standards Initiative, n.d.; Massachusetts Department of Education, 1994), and calls for school districts to strengthen instructional strategies for the core (Tier $1)$, representing approximately $80-90 \%$ of the student population. Tier 1 strategies are designed to be flexible and tailored to meet the individual learning needs of students. The philosophy behind the strengthening of core teaching practices is that there will be a reduction in the numbers of students identified as being in Tiers II (targeted) and III (intensive) and ultimately accelerating student achievement. Additionally, RTI allows for earlier identification of students that can legitimately be identified as requiring Tier II or III interventions, thereby increasing their opportunity for academic success (School District 54, n.d.).

## Academic Systems



Figure 4: Response to Intervention (RTI) Triangle (School District 54, n.d.)

Family engagement is important to consider for all three of the tiers in the RTI model. Collaborative problem solving is a key activity (input) in the RTI model, and parents can provide valuable information about factors contributing to their child's academic and/or behavioral presentation in the school setting. Parents can help to significantly bolster RTI interventions for their child by suggesting strategies and interventions that have been successful in the home setting, as well as providing relevant information about their child that may be useful to the school-based team. The RTI model, specifically Tier I (universal) interventions, provide an inroad for families to engage with the school specifically around their child's performance in school (School District 54, n.d.). RTI, being a highly structured, flexible, and data-driven initiative aimed at accelerating student achievement, provides a framework for organizing the efforts of school districts to engage families. The strategies corresponding with the types of family engagement can be conceptualized within a three-tiered model to create different levels of family engagement activities. The involvement of parents within RTI school initiatives impacting their child is often overlooked. Parents can serve as an important leverage point for bolstering district and school-level RTI initiatives (Jennings, n.d.).

## RTI Meetings

RTI meetings are usually held in order to address student academic and behavioral concerns, and parents frequently attend these meetings. One of the biggest challenges for educators implementing the RTI model is that teachers often are compelled to change the way they teach, learn, and interact with others, including parents. Parents can provide valuable information about their child's presentation in school and student
attendance patterns, especially related to Tier 2 and 3 interventions. RTI meetings are designed in order to solve a problem or set of problems related to student achievement, and parents usually can provide relevant student and family history (data) more readily than school faculty and staff, which can be useful when developing and implementing interventions. The need for effective collaboration is essential to the RTI model, and there is ample room for parents to be involved in this kind of shared decision-making when school boundaries are expanded accordingly (Bean \& Lillenstein, 2012).

Broffenbrenner's Ecological Model of Child Development (1979) states that child development is both directly and indirectly influenced by four environment systems, which include:

1. Child's family,
2. School,
3. Community, 4. Culture.

At least the first three systems converge during all parent-school meetings, and especially at RTI meetings, where the family's culture often comes into play in relation to behavioral concerns (e.g. discipline techniques) as well as beliefs about regular school attendance. According to Broffenbrenner's model, an RTI meeting that includes parents can effectively impact all of the environment systems contributing to their development. For this reason, it is important for parents to understand the underpinnings of the RTI model to increase the effectiveness of the meeting in improving student outcomes (Sylvester, Lewis, \& Severance, 2011).

## Innovative Approaches to Parent Meetings

Parent-school meetings are now more widely viewed as the complex events that
they are, and there is a growing body of research aimed at refining practices surrounding these meetings. A technique used by teachers that is associated with improved meeting outcomes is active listening. Active listening can be described as a "multistep process, including making empathetic comments, asking appropriate questions, and paraphrasing and summarizing for the purposes of verification" (McNaughton, Hamlin, McCarthy, Head-Reeves, \& Schreiner, 2007, p. 224).

Although this approach is taught directly to professionals in the counseling profession, teachers have not traditionally been trained in this skill, which is reflective of the overall lack of training teachers and other school staff have received in how to facilitate collaborative parent-school meetings. When active listening is used effectively, the listener (e.g. teacher or other school staff) will have acquired a clear understanding of the viewpoint of the person speaking (e.g. parent/guardian), and will be better able to incorporate this viewpoint into the planning portion of the meeting. When preservice teachers are taught active listening as a targeted communication skill, parents/guardians have reported that parent-school meetings have been more effective (McNaughton et al., 2007).

The communications (e.g. phone calls, letters) leading up to the meeting has a significant impact on the comfort level of the parent/guardian within the context of the meeting. When teachers actively work to allay the fears and anxieties of parents prior to the meeting, the meeting itself more likely to be viewed as effective by both parents and school staff. The techniques used to invite parents to meetings have a significant impact on meeting outcomes. This is especially important when attempting to engage families that have displayed patterns of disengagement from the school. Meeting invitations are
often designed to catch the attention of the parent/guardian, but do not always emphasize the important role that the parent plays in the meeting itself or the importance of their presence at the meeting. Schools do not often take into account the limitations of the parent's schedule (e.g. work, childcare) and schedule the meeting day and time without consulting the parent first. Deferring to the parent's schedule limitations is a way to show respect for their prior commitments and their time, and will likely lead to their increased meeting attendance (Stevens \& Tollafield, 2003).

There has been an increased focus on making the experience of parents in school meetings more positive by treating them as partners as opposed to treating them as adversaries. While this may read as purely logical and might be considered a "nobrainer," parents are often not viewed as partners by teachers and other school staff who hold the belief that the professional educators at school know best (Stevens \& Tollafield, 2003). This often leads to an overemphasis on the deficits (weaknesses) of students rather than an exploration of their strengths. Strength-based planning is slowly trickling into the practices of public schools despite being prevalent in mental health practice for many years, specifically the Wraparound approach, for many years (West-Olatunji, Frazier, \& Kelly, 2011).

The strength-based approach is based on the premise that all students have talents and strengths, or "islands of competence" (Brooks, 2007), and that these need to be identified and built upon in order to compensate for their areas of difficulty. One technique associated with this approach is reframing in which deficit-based terminology, such as "dysfunctional," "disturbed," and "disabled," are replaced with strength-based descriptions that more fully describe the child's functioning, such as "he displays a lot of
talent in art and music, but struggles with his math skills." The second part of the preceding description is devoid of personal judgment directed towards the student and/or his or her family, and describes the child's functioning from a skills perspective. When applied to parent-school meetings, this approach can decrease feelings of anxiety in the parent and help to paint a fuller picture of the student as they present in the school setting (Weishaar, 2010), as well as to avoid the trap of blaming the parent for all the child's "problems," which is a common mistake made by school faculty, staff, and administration (Orphal, 2012).

The strength-based approach to engaging families should not be mistaken as being "optimistic" or "looking on the bright" side of the problems faced by families (DuBrino \& Irsfeld, 2009, p. 26). It would be a mistake to try to reframe the problems faced by students and their families as positive, or to help them find a silver lining. Instead, the recognition that risk factors coexist alongside protective factors that mitigate the negative impact of those risk factors is a key aspect of a strength-based approach. Essentially, the strength-based approach is intended to decrease the prevalence of problem conversations that are often prompted by public schools in parent meetings. These types of conversations are characterized by an overemphasis on what is not working for the student and their family, and can also overly focus on diagnoses (labels) and visual signs (symptoms) of problems. When "problem meetings" are held repeatedly with families, they often feel judged, blamed, shamed, and embarrassed. This effect can occur within families of students despite the seemingly positive intentions of school staff, and can have a long-lasting detrimental impact on the quality of the relationship between school and home (DuBrino \& Irsfeld, 2009).

The idea of schools partnering with families around their child's academic success is a concept that falls under the family engagement types of shared power and decision-making. Schools do not capitalize on opportunities to learn from the parents of students about how to improve both teaching practices as well as family engagement techniques. Judging parents for occurrences such as not showing up to a school meeting is detrimental to the relationship between home and school and decreases the likelihood that problems will be effectively solved (Myers, 2013).

Some ways in which schools can partner with families are by performing home visits or community-based meetings, in which the teacher would meet with the family outside of the school. This is an especially effective technique when working with parents who have developed a negative association with the school environment due to their own school experiences, and can help to build bonds of trust between the teacher and parents of students. The teacher often develops a more comprehensive picture of the student and their family, and the teacher is then less likely to ascribe negative and personal judgments to them. Additionally, home visits lead to increased attendance by parents to schoolbased meetings partly due to increased feelings of comfort resulting from the previously established and positive parent-teacher relationship. For families living in poverty, the teacher often develops increased empathy for students and their families when meeting with the family in their home (Smith, 2013).

Student-led conferences are becoming increasingly popular in U.S. public schools, and represent another way in which power is shared not only with parents but also students themselves. In this model, meeting agendas are developed collaboratively by the student, teacher, and parent(s), and represent a democratic approach to problem
solving at the school level. There is typically an increased investedness in the outcome of the meeting by all parties, and there is often a successful resolution to the presenting problem(s) in these meetings (Tholander, 2011).

## The Pollyanna Effect

Teachers and school administration often fall into the trap of overly focusing on the deficits (areas of weakness) of students, and doing so in a way that is unproductive. There is also the opposite tendency to be cognizant of and it is referred to as the Pollyanna Effect. This effect is characterized by a tendency to "sugarcoat" or gloss over areas of difficulty with families during meetings to the extent that families are often left wondering why the meeting was requested in the first place. This happens most commonly with families and students of color, and often starts with good intentions on the part of teachers and other school staff. From an empathic standpoint, teachers may not want to burden parents further by describing problems in school. Teachers are cautious about asking parents to pursue supplemental services outside of school, such as tutoring, for example, and presume that they cannot afford to pay for it. Essentially, in an effort to be sensitive to the student and family's class, ethnicity, race, and culture, schools convey their belief as school staff that they do not believe in the family's capacity to care for their child, leading to confusion on the part of the parent and a lack of clarity in regards the nature of the problem (Brown, 2013).

The Pollyanna Effect is an often overlooked and damaging tendency of school faculty and staff, and it is heavily related to the literature on cultural competence (Jones, 2006; Kelly, 2008). Teachers and administrators must be aware of this tendency, and monitor themselves within the context of parent-school meetings related to student
attendance, academic performance, and other issues to ensure that they are fully describing the strengths as well as areas of difficulty to parents in an effort to remedy the presenting problem(s). Parents have the right to be given a comprehensive description or report of their child's educational progress by teachers and other school staff in order to develop a plan in which all related supports (e.g. teachers, parents, community agencies, etc.) can work together to increase the child's chances for academic success.

## Collaborative Problem Solving

Collaborative problem solving is an approach popularized by Dr. Ross W. Greene, founder of the Center for Collaborative Problem Solving, who first-introduced the concept in his book, "The Explosive Child: A New Approach for Understanding and Parenting Easily Frustrated, Chronically Inflexible Children" (2009). Greene defines a process of collaborative problem solving for children with serious emotional and behavioral disturbances that can be used by parents, teachers and other school staff, and mental health professionals. His emphasis is on identifying and planning around the underlying cause(s) of the child's behavior rather than applying judgmental labels to the child (e.g. attention-seeking, manipulative, limit-testing, poor motivation) (Center for Collaborative Problem Solving, n.d.). The tendency to ascribe negative and sometimes damaging labels to parents and students is common regarding student attendance issues as well, and the labels (e.g. neglectful parenting, devaluing of education, laziness on the part of the student and/or parent(s), etc.) not only take the focus off of the underlying problem(s), but also serve to damage the relationship between the school and family.

The terms collective intelligence and social sensitivity have been recently coined in response to research related to how people work collaboratively to complete a variety
of tasks. Social sensitivity can be described as a group member's ability to read the emotions of others in the group and adjust their communication style accordingly. Collaborative groups, or groups in which all members are actively engaged in working towards a solution to a problem, whose members display higher levels of social sensitivity have been shown to complete tasks with greater ease and decreased conflict (Damon \& Phelps, 1989).

Collective intelligence can be described as the combined skills of a collaborative group related to a particular set of tasks. The individual skill-level of team members is not as crucial as the way in which team members negotiate these skills related to the task at hand, although increased prior experience and expertise of team members has been shown to have a positive impact on the outcomes for these types of meetings (NokesMalach, Meade, \& Morrow, 2012). The vast majority of this research has been performed in the fields of business and social psychology, and has not been adequately explored in the public schools despite many of the core principles being common between professional fields. However, U.S public schools would benefit from borrowing concepts from the research base from related fields to improve the fidelity of implementation in collaborative problem solving meetings with parents related to student issues such as attendance (Science Daily, 2010).

Greene's application of collaborative problem solving to help children with behavioral problems at home and/or school was an important step for the process to gain credibility and to begin to be applied to other school-based problems (Greene, 2009, 2011; Greene \& Ablon, 2005). Greene brought more awareness about collaborative problem solving as an effective technique for resolving ongoing issues with children, and
support for this approach was already increasing in some schools in the U.S.. The Southwest Educational Development Laboratory (SEDL) developed a detailed process for creating collaborative problem solving teams to improve student success, and delineated the process into five stages:

1. Getting started (defining the school community and planning first steps)
2. Mobilizing the team (building membership and building a common understanding)
3. Setting direction (agreeing on a vision and setting team goals)
4. Taking action (developing strategies and establishing evaluation models)
5. Reviewing and refining (assessing team effectiveness and celebrating successes) (Jordan, Averett, Elder, \& Orozco, 2000).

The extensive manual developed by the SEDL highlights the complexity of establishing effective collaborative teams and laying the groundwork for sustainability of these teams. The labor-intensive nature of establishing collaborative teams in public schools is often what leads to their lack of prevalence. School administrators often are not willing or able to set aside the time required to establish these teams, and at times, shortcuts are taken in the development stages that can come back to haunt the team during later stages (e.g. setting direction or taking action), such as lack of team cohesion or trust or a general misunderstanding of how to effectively collaborate with families.

The Montgomery Board of Education in Maryland integrated the RTI model with a collaborative approach to problem solving. In 2008, the school district called for schools who were already using collaborative problem solving processes to continue to do so, and for schools that have not used CPS to begin to do so with the guidance provided in the district's guideline manual. The district based the initiative on the premise that students are influenced by four domains (see Figure 5): curriculum/instruction, teacher/training, environment/classroom/peers, and home/community. The framework for
collaborative solving in Montgomery County takes into account and examines all of these influences on student learning and behavior for the purposes of increasing positive outcomes.


Figure 5: Factors that May Influence Learning and Behavior (Montgomery County Board of Education, 2008, p. 2)

Figure 6 depicts the collaborative problem solving process outlined in the
Montgomery County plan, and includes the following steps:
Step 1: Define the problem (Plan)
Step 2: Develop a strategy
Step 3: Implement the strategy (Do)
Step 4: Evaluate effectiveness (Study)
Step 5: Continue, modify, or end strategy (Act)
Specific guiding questions are provided for each step to aide schools new to the process to maintain fidelity of implementation as they get used to the process. For example, the guiding questions for Step 1 (Defining the problem) are as follows:

- What is the problem?
- What are three or four observable symptoms of the problem?
- How is the problem impacting the instructional program? (Montgomery County Board of Education, 2008, p. 2)

The level of specificity provided in the guidelines and the cyclical nature of the problem solving process provide schools the opportunity to improve upon their problem solving processes using related student data and their own reflective practice.


Figure 6: Collaborative Problem Solving Process (Montgomery County Board of Education, 2008, p. 4)

The Montgomery School Board's integration of collaborative problem solving with an RTI tiered-service delivery model (see Figure 7) is a particularly useful addition to the body of related school and district-level practices. Figure 7 depicts the framework for how interventions are implemented in all three tiers, as well as who consults at each tier (e.g. the Education Management Team (EMT), or school administration, consults on Tier 3 interventions). It is notable that according to the Figure, parents are only involved in the Tier 1 interventions (e.g. teacher/parent consultation), which is not an accurate reflection of what occurs in schools. In fact, parents should become more integrally involved in consultations related to their child's school performance in Tiers 2 and 3.

One example of a Tier 3 intervention in which parents are not only important participants, but also required participants, is in the Special Education TEAM evaluation
process, in which interventions cannot be implemented until a parent signs permission for the child to receive services through an Individualized Education Program (IEP) (Nunn \& McMahan, 2000).. In short, parents can and should play a meaningful role in all three tiers of the RTI model in planning around their child's educational needs.

PROBLEM SOLVING WITHIN A TIERED-SERVICE DELIVERY MODEL


Figure 7: Problem Solving within a Tiered Service Delivery Model
(Montgomery County Board of Education, 2008, p. 3)

The Montgomery School Board's approach provides a useful roadmap for carrying out collaborative problem solving meetings in a systemic and sustainable manner, and the plan leaves room for a variety of problems to be addressed, including but not limited to student behavior, attendance, and general academic performance. The process has built-in mechanisms for refining the practice in an ongoing way at the schoollevel to increase the likelihood that collaborative problem solving will become an embedded practice in schools. Situating collaborative problem solving efforts within RTI, as is done in the Montgomery County, Maryland, is particularly useful in that it combines collaborative problem solving, a three-tiered approach, and family engagement practice
into an aligned effort to improve student outcomes, as opposed to separate initiatives without a common goal. This kind of coordinated approach is likely to increase the sustainability of collaborative problem solving efforts, which is frequently the downfall of school and district-wide efforts of professionals and parents (Santangelo, 2009).

Collaborative problem solving meetings are often overlooked by school districts as not only a family engagement effort that is already embedded into their daily practices, but also as a means to accelerate student achievement. Collaborating to solve problems is not a simple process, and unless there is a laser-like focus on the root cause(s) of the presenting problem(s), a resolution is not likely. Collaborative problem solving can be easily embedded within the RTI framework in which parents can play an integral role in all three tiers.

The three-tiered, data-driven approach called for by the Response to Intervention model provide a framework that can be applied to other parent-school meetings of a collaborative nature. Data is useful and should be used in all meetings related to student progress, and data sources can be derived from student grades, behavioral data, and attendance reports.

## Student Attendance and Truancy

It is self evident that students are able to better able to access core instruction and achieve academic success when they are present in school. Hillary Clinton said, "Showing up is not all of life, but it counts for a lot." This certainly applies to students in public schools across the United States. This is true for students at all grade levels, but especially during the preschool and elementary school years. Patterns are established during these formative years that are often sustained for many years in school and beyond
in the workplace. Positive student attendance patterns benefit not only the student him or herself, but also entities in the community such as the juvenile justice system (e.g. Juvenile Probation and Court) and child protective services (e.g. Department of Children and Families). Both have a vested interest in improving student attendance outcomes, as both the Juvenile Court and DCF typically become involved with a family after negative attendance patterns persist over time. The Commonwealth of Massachusetts was the first state to enact school attendance laws in 1852 as an effort to decrease child labor (Trujillo, 2006), and student attendance continues to be an area in need of improvement in the state. Effective school-based attendance interventions follow a three-tiered model similar to instructional practices, and are implemented systemically to varying degrees in school districts.

## Prevalence and Impact

Habitual truancy is a term used to characterize chronic unexcused absences from school by a minor that exceed the amount of absences allowed for in State law (U.S. Department of Justice, 2009). Truancy is widely viewed as a significant problem across the United States, but it has been a challenge to generate data to support this viewpoint. This is partially due to inconsistency in data collection and reporting at the school, local, and state levels (Heilbrunn, 2003).

Truancy is considered to be an early warning sign of juvenile delinquency, and educational failure. Related to delinquency, there are elevated instances of substance abuse, high school dropout, suicidal thoughts and attempts, and early sexual intercourse associated with chronic attendance problems. Attendance problems in kindergarten negatively impacts academic performance in the first grade especially for Latino children.

Most of these children also lack the resources to adequately make up ("catch up") for lost learning, putting them at a further disadvantage (U.S. Department of Justice, 2009).

One staggering statistic is that for urban, low-income students in elementary school, each day they are absent from school correlates with a seven percent lower probability of graduating from high school (Seeley, 2008). Unemployment rates for dropouts are almost twenty percent higher than for high school graduates, which has a severe impact on local and federal economic outcomes (Heilbrunn, 2003). When chronic attendance is viewed through the lens provided by these statistics, the urgency for schools to respond in effective and systematic ways to chronic student attendance problems is clear.

Adults who displayed attendance problems while they were in school are more likely to have poor physical and mental health, work in low-paying jobs, live in poverty, utilize the welfare system extensively, have children with behavior problems, and to be incarcerated (Baker, Sigmon, \& Nugent, 2001). It is fair to say that the monetary costs to local, state, and federal governments caused by the longitudinal outcomes for students who are chronically truant as adults are significant, although the exact figures would be nearly impossible to isolate and calculate.

Absenteeism has a negative impact on the school as a whole, specifically other students in the school environment. There are serious consequences on the rate of instruction (slower), which negatively impacts the extent to which all students are engaged in instruction (Balfanz, Durham, \& Plank, 2008; Nauer, White, \& Yerneni, 2008; Wilson, Malcolm, Edward, \& Davidson, 2008). This applies not only to absences, but also to chronic lateness (tardies) as well. From a school improvement and
accountability standpoint, the consequences for school districts that do not adequately address chronic attendance problems are dire, especially since No Child Left Behind (NCLB) links achievement results to school-wide attendance data ("No Child Left Behind (NCLB) Act of 2001," 2002).

Chronic attendance problems are positively-correlated with elevated rates of poverty, single-parenthood, unemployment of one or more parent(s), students with special needs, school discipline problems, and juvenile justice involvement (Finlay, 2006). Urban school districts and other districts with high rates of poverty must work to develop and refine existing programs to intervene with chronic student attendance problems to increase student achievement results.

## Massachusetts Context

In elementary public schools in Massachusetts, filing either an Adult Failure to Cause (ADF) against the parent/guardian of students or a Child Requiring Assistance (CRA, formerly known as a CHINS, or Child in Need of Services) (Commonwealth of Massachusetts, 2012) for chronic absenteeism are the primary Tier 3 attendance interventions. The criteria for filing a CRA on a "habitual truant" is as follows:

A child between the ages of 6 and 16 who, without excuse, willfully fails to attend school for more than 8 days in a quarter. The school applicant must state whether or not the child and the child's family have participated in a truancy prevention program (Commonwealth of Massachusetts, 2012).

The second part regarding truancy prevention programs is an addition through the CRA legislation when compared to the prior CHINS legislation. The state of Massachusetts is now requiring school districts to devise preventative programs to both remedy attendance programs at the school level as well as to decrease the number of CRA cases referred to

Juvenile Court. Although ADF's (filed against a student's parent/guardian) do not currently have the same requirements regarding school-based preventative programs, the precedent set by the CRA legislation is likely to be applied to ADF procedures in the future. This shift at the state level serves as a call-to-action for school districts across the Commonwealth to increase their efforts to address attendance problems proactively and in an ongoing manner.

The CRA legislation arose out of an increased realization that early involvement of families and children with the court system is a significant predictor for longer-term involvement (see previous section). Chronic attendance problems in elementary school are linked to serious delinquent behavior at the age of twelve and younger, and attendance problems are often the first risk factor to become evident for elementary school students (Lehr, Sinclair, \& Christenson, 2004; Loeber \& Farrington, 2000; McCluskey, Bynum, \& Patchin, 2004). The CRA legislation was also prompted by statistics indicating that first grade problematic attendance and subsequent court involvement, for example, has been shown to significantly impact incidents of violence in the child up to 26 years later (McCord \& Ensminger, 1997). Additionally, research has indicated that mothers are disproportionately blamed and held primarily responsible by the courts for attendance problems with their child(ren) as compared to fathers (Donoghue, 2011). The implicit message is that student attendance problems are best solved at the school level without formal involvement from the juvenile justice system, thereby decreasing the likelihood of long-term involvement in the juvenile and adult justice systems.

In Massachusetts, the Department of Children and Families (DCF), the state
agency charged with the task of investigating all claims of abuse or neglect of children, often become involved in ADF's and CRA's. Neglect is defined in Massachusetts as:

Failure by a caregiver, either deliberately or through negligence or inability, to take those actions necessary to provide a child with minimally adequate food, clothing, shelter, medical care, supervision, emotional stability, and growth, or other essential care (Commonwealth of Massachusetts, n.d.-b).

The clause of "other essential care" is often interpreted by school and court districts as including compulsory education of children (Commonwealth of Massachusetts, n.d.-a). DCF often becomes involved through the filing of a 51 A report (allegation of abuse or neglect) by the school district when the ADF/CRA is filed. This justification for the filing of the ADF/CRA falls under the category of "educational neglect."

Another way DCF becomes involved is through Care and Protection orders issued by the judge when the ADF/CRA is heard. This may result in a variety of outcomes, placement of the child in a foster home or group home, or termination of parental rights in cases of extreme abuse and/or neglect. Involvement in child protective services often disrupts the family's functioning significantly, and there has been evidence that involvement often does not decrease the risk of the presenting problem(s) (Bakalar, 2010). Although the longitudinal impact of involvement in child protective services will not be explored in this study, it can be presumed that it would benefit students and families to have access to pre-referral intervention programs at the school-level to address student attendance in an effort to avoid referrals to state agencies, such as DCF and the Juvenile Court.

## Chronic Absenteeism

A common term used for chronic absenteeism is "school refusal." This term is
often used to oversimplify the multiple causes of chronic attendance problems. Chronic attendance problems in the elementary school years cannot typically be traced back to a singular root cause, but instead, are usually symptomatic of other related issues and risk factors, such as poverty and social marginalization. Separation Anxiety Disorder (SAD) is one of the most common reasons for attendance problems for elementary school students. It is characterized by extreme difficulty detaching, or separating, from a caregiver, and it occurs relatively equally in males and females. Separation anxiety is characterized by excessive and unrealistic worry about harm to self and/or caregivers, somatic complaints, cardiovascular complaints, panic during separation, and the excessive need to contact parents during separation (Doobay, 2008). This often derives from excessive worrying by the child about their caregiver(s) due to domestic violence or mental or physical illness experienced by the caregiver or parent. SAD is estimated to occur in between $3 \%$ and $13 \%$ of children (Eisen \& Schaefer, 2005), and from an attendance perspective, separation anxiety can lead to frequent absences, tardies, and increased disruption to the morning routine due to behavioral outbursts.

Bullying is another common reason for attendance problems with elementary school students. This is sometimes referred to as avoidance behavior, characterized by the student seeking to avoid uncomfortable situations, such as being the target of bullying in the school setting, missing school as a result. Victims of bullying are significantly more likely to be absent from school than their peers who are not targets of bullying (Gastic, 2008). This coupled with the phenomenon of underreporting of bullying incidents by parents/guardians and students emphasizes the importance of ongoing, two-way communication with parents/guardians especially around issues of bullying to promote a
feeling of safety in the victim as well as to increase positive attendance patterns for the impacted student (Catalanello, 2011).

Attendance problems can also be caused by a desire to avoid uncomfortable situations in the school setting (Kearney, Lemos, \& Silverman, 2004). There are many examples of aversive situations that can be experienced in the school setting, including:

- Uncomfortable interactions with peers,
- Contentious relationship with teacher and/or other school staff/administration,
- Learning difficulties and learning disability,
- Chaotic learning environment.

Parents/guardians often become aware of these circumstances before school staff, and it is important that they communicate the situation to the school in order to resolve the student's desire to avoid school, thereby remedying the attendance issue.

A somewhat obvious reason for chronic attendance problems is what is referred to as "malingering," or engaging in more desirable activities than school (Evans, 2000). Examples of these activities may be family vacations, day trips, playing in the neighborhood, or simply staying at home and watching television or playing video games. Usually this cause results in episodic (not chronic) attendance problems, but infrequently, chronic attendance problems can result from this root cause. Most of these causes of chronic school attendance problems are most readily resolved when there is ongoing, two-way communication between school staff and the parents/guardians of students. Parents can help school faculty/staff to more fully understand the underlying causes of attendance difficulty, and to help school staff be more responsive to the student's needs in this area.

## School-Based Interventions

There is significant variation among schools in the United States regarding the breadth and depth of interventions available to address student attendance, and the fidelity with which these interventions are conducted varies as well. The following description is intended to delineate a small number of research-based school-based interventions to address problematic attendance patterns.

Key elements for school-based programs that effectively address problematic student attendance patterns include the following elements:

- Parental involvement
- Meaningful sanctions/consequences for truancy (e.g. filing with court)
- Meaningful incentives for attendance (e.g. student rewards for good attendance)
- Ongoing school-based truancy reduction programs (e.g. School Attendance Review Boards (SARB's))
- Involvement of community resources (e.g. mental health agencies, educational advocate agencies, etc.) (Baker et al., 2001).

There is a recommended case management component of these truancy prevention programs in which schools and/or community agency workers follow-up on attendance issues with students and their families.

Truancy prevention programs promoting regular student attendance should use at least one of the following approaches:

- Court alternatives
- Mentoring programs
- Law enforcement participation
- Increasing parental involvement
- Truancy awareness campaigns
- Other strategies, such as improving parent-teacher communication and utilizing community resources (U.S. Department of Justice, 2009, p. 9).

These elements should be tailored to the needs of the surrounding community as well as the needs of the particular family, since these attendance interventions like other
interventions are not one size fits all.
Family group conferences (FGC's) are "family-led decision-making meetings that include the family and other involved parties in the formulation of a plan to help address the needs of the child" including needs related to school attendance (Hayden, 2009, p. 205). FGC's have been widely used in a model of collaborative practice in community agencies and schools referred to as the Wraparound model (Eber, Hyde, \& Suter, 2011; M. H. Epstein et al., 1998; M. H. Epstein et al., 2003; Malysiak, 1997; Nordness, 2005; Quinn \& Lee, 2007; Scott \& Eber, 2003; West-Olatunji et al., 2011). Wraparound arose out of the realization that families who have multiple service providers may benefit from CPS meetings due to coordination issues that arise when there are multiple entities (e.g. school, mental health professionals, informal supports such as churches, etc.) involved with a family. Wraparound as a philosophy espouses the belief that families are able to achieve their goals more readily when there is a unified and coordinated approach between providers (J. A. Irsfeld \& T. M. DuBrino, 2009).

The philosophy of the Wraparound model assumes that problems such as attendance cannot be solved by the family in isolation from the environment that surrounds them, but instead, that families should have access to a system of support to overcome longstanding patterns. Wraparound has become more widely used in U.S. public schools to resolve student behavior and attendance problems due to an increased awareness that community-based supports and involvement of parents is crucial to solving significant problems. The unprecedented sharing of power to parents through shared decision-making is a key characteristic of the Wraparound model and overlaps with collaborative problem solving at the school level as well (Malysiak, 1997).

Community partnerships with schools are an extension of the philosophy of the Wraparound model, and they are often used by school districts to support their attendance intervention initiatives. Strong community partnerships in conjunction with high levels of family engagement have been shown to have a strong positive impact on student attendance. These outcomes are especially strong for schools that approach this in an integrated, systemic manner, as opposed to the trial-and-error approach that is not connected to prevailing research (Sheldon, 2007).

Project START (Stop Truancy and Recommend Treatment) is an example of a truancy reduction program that takes into account the multilayered and complex nature of attendance problems. It is a collaborative, interagency initiative that includes the local school district, judicial system, Department of Human Services, and community social service agencies. Community-based support workers are involved in every phase of implementation, and consistent policies and criteria are implemented by all stakeholders. Project START was found to have a significant positive impact on both short and longterm attendance outcomes for the students of families who participated, highlighting the potential benefit of implementing a tiered, multi-agency approach to address problematic student attendance patterns in an urban school district (Fantuzzo, Grim, \& Hazan, 2005).

Within these collaborative teams, strategies are often implemented to address a common root cause of attendance problems in elementary school children: anxiety. Techniques aimed at alleviating the symptoms of anxiety in students can help to improve attendance outcomes. Some techniques are:

- Relaxation training: using body relaxation and mental imagery techniques to decrease feelings of anxiety,
- Cognitive restructuring, or self-statement training: student analyzes his/her self-
statements about why he/she is not attending school. Problematic perceptions are challenged and reframed in ways that are less anxiety provoking for the student,
- Exposure: for students who have been absent for extended periods, they may gradually re-enter the school environment (e.g. initially stay at school for half a day, and then gradually increase to the entire day). This help students to become more comfortable with their own feelings about school and realize that the reality of school is not as negative as their perception of it (Lauchlan, 2003, pp. 139140).

These strategies can be embedded into school and community-based processes for addressing problematic student attendance, and are likely to have a lasting positive impact on student attendance because they address a significant root cause.

Chronic student attendance problems (truancy, school refusal) are multidimensional and require a coordinated effort between the school, student family, and community supports, as appropriate, to remedy. The need for consistency among all of the team members and the ability to monitor the quality of communication between all involved parties lends itself to the collaborative problem-solving model.

The preceding literature review provides the context in which the study will be conducted for the purposes of examining the impact of a Tier 2 attendance intervention program referred to as Fresh Start in the Wingate Public Schools on student attendance outcomes. The program's focus on families that have often displayed patterns of disengagement from their child's school, and who have children with negative attendance patterns brings together the family engagement research with the tiered approach to problem solving collaboratively with the families of students. For these reasons, the study has many potential audiences and aligns with the Common Core as well as efforts to operationalize family engagement into practice.

## CHAPTER 3

## METHODOLOGY AND RESEARCH DESIGN

As attendance intervention programs become more embedded and formalized in elementary schools across the United States, there is an increased need to develop sophisticated techniques to analyze practices (the manner in which collaborative problem-solving meetings are conducted) and outcomes (changes in student attendance patterns following the intervention). Effective school-family collaboration aimed at solving attendance problems is crucial in order to increase student access to direct instruction to improve achievement outcomes.

## Statement of the Problem

Students who regularly attend school are more likely to achieve both short and long-term success in school (Chang \& Jordan, 2011; Chang \& Romero, 2008). There is currently a lack of systemic tiered interventions to improve student attendance in public schools across the United States. At the elementary school level, the responsibility for the root causes of attendance problems are held primarily by the parent/guardian, and it is crucial for schools to successfully engage student families to solve attendance concerns collaboratively. When attempts to communicate with parents of students (e.g. letters, phone calls, meeting invitations, etc.) have failed repeatedly, schools often take the families to Court (a Tier 3 intervention) in an attempt to remedy the presenting attendance problem. The court filing can further strain the relationship between the school and family, causing parents/guardians to become increasingly disengaged with their child's school, especially if Tier 2 attendance interventions have not been utilized prior to the court filing.

Response to Intervention (RTI) is a systematic approach for monitoring student academic progress through data collection and analysis. The tiered approach inherent in the RTI model outlines three levels of intervention to respond to student needs, and is the model typically applied to student academic and/or social-emotional needs. The RTI model has only recently been applied to efforts to address problematic attendance patterns in students. The Massachusetts Tiered System of Supports (MTSS) (Massachusetts Department of Elementary and Secondary Education, n.d.-b) aligns with the principles of RTI and is representative of the Commonwealth's efforts to embed tiered academic and social/emotional supports in public schools statewide.

Currently, there is a limited body of research related to both the tiered attendance interventions themselves and the impact of tiered interventions on student attendance outcomes. This lack of research represents a significant gap in the scholarly literature related to tiered attendance interventions. When schools intervene early while students are in elementary school, there is a greater likelihood that both short and long-term attendance outcomes will be improved (Chang \& Jordan, 2011). For these reasons, it is crucial that tiered attendance interventions programs are evaluated in terms of their espoused activities (interventions), as well as their short and long-term results (outcomes) in order to delineate best practices that can be tailored to the specific needs of each school community.

## Research Questions and Hypotheses

The following research questions and related hypotheses will be used for the study related to a Wingate Public School Tier 2 attendance intervention program called Fresh Start:

Table 1: Research Questions and Hypotheses

| Research Question | Hypotheses | Data Sources | Statistical Testing/ Analysis |
| :---: | :---: | :---: | :---: |
| R1: Who is referred to and served by the AIP? | H1a: Minority students/families (nonWhite) will be more frequently referred to the intervention program than White families when compared to district averages. <br> H1b: Students who have Special Education services will be referred more frequently than students who do not receive these services when compared to district averages. <br> H1c: Students whose families are categorized as low-income will be referred more frequently than students who are not low-income when compared to district averages. | - List of students/families referred <br> - Demographic information of students/families | Descriptive statistics <br> Charts <br> Graphs |
| R2: For <br> students whose families receive the intervention and display improved attendance outcomes following the intervention, is there sustained improvement in the following school year? | H2a: Student attendance will improve following the implementation of the intervention for the majority of cases. <br> H2b: Improved student attendance patterns following the intervention (20 school days after intervention) will be positively correlated with improvements over baseline during the following school year. <br> H2c: The impact of the attendance intervention program on attendance outcomes will be more positive for younger students (in lower grades) than for older students (in higher grades). | - Absence and tardy percentages during the school year of the intervention <br> - Absence and tardy percentages during the 20 school days following the intervention, and in the subsequent school year. | Scatterplots <br> Independentsamples ttests <br> Spearman correlations |
| R3: For students who showed an initial attendance improvement following the intervention, are there differences between demographic subgroups? | H3a: Students receiving free or reduced lunch will have less positive attendance outcomes following the intervention than students who do not receive free or reduced lunch. <br> H3b: Students with disabilities will show less improvement in attendance following the intervention than students without disabilities. | - Absence and tardy percentages during the school year of the intervention <br> - Absence and tardy percentages during the 20 school days following the intervention, and in the subsequent school year. | Scatterplots <br> Independentsamples ttests |

## Context of the Study

The Tier 2 attendance intervention program in question for the study exists within the Wingate Public Schools, a large, urban public school district in central Massachusetts. This section will describe the demographics of the district in which the Tier 2 attendance intervention program is implemented and the demographics of the particular schools that have access to the intervention.

## District Student Demographics

The school district in which the Tier 2 attendance intervention program is implemented is a large urban public school district in Massachusetts. The Wingate Public Schools has 24,562 students as of the 2013-2014 school year (see Table 2), and is designated a Level 4 district. Level 4 districts contain many of the state's most struggling schools based on an analysis of four-year trends in absolute achievement, growth, and improvement trends as measured by MCAS (Massachusetts Department of Elementary and Secondary Education, n.d.-a). Level 4 districts in Massachusetts have access to targeted assistance by the Massachusetts Department of Elementary and Secondary Education to accelerate student achievement.

Table 2: Wingate Public Enrollment by Gender (2013-2014)

| Gender | District | State |
| :---: | :---: | :---: |
| Male | 12,735 | 489,422 |
| Female | 11,827 | 466,317 |
| Total | 24,562 | 955,739 |

While the attendance rate is $.3 \%$ better than the state average and the average number of days absent for each student is .7 school days lower than the state average (see Table 3), the district's percentage of students with more than 9 unexcused absences
during the school year is $29.8 \%$, which is more than $20 \%$ higher than the state average of $9.3 \%$. This is a significantly higher percentage compared to the statewide data, and indicates that the district has a widespread problem with student attendance despite a relatively high attendance rate when compared to the state average. The district attendance percentage can be a misleading figure because it does not necessarily reveal how widespread attendance problems are among the student population. For example, students with very low attendance percentages are often offset by students with very high attendance percentages, therefore a high district attendance percentage is not sufficient to describe the school district's attendance outcomes. Wingate's very elevated number of students with 9 or more unexcused absences when compared to the state average suggests that the school district has a chronic problem related to student attendance that has impacted a large number of students. The retention rate of $2.7 \%$ is $.9 \%$ higher than the state average, and grade retention, commonly referred to as "staying back," is a risk factor that increases in probability with the presence of negative attendance patterns.

Table 3: Wingate Public Attendance Data (2013-2014)

| Indicator | District | State |
| :--- | :---: | :---: |
| Attendance Rate | $95.1 \%$ | $94.8 \%$ |
| Average \# of days absent | 8.3 | 9.0 |
| Retention Rate | $2.7 \%$ | $1.8 \%$ |
| Unexcused Absences >9 | $29.8 \%$ | $9.3 \%$ |

Table 3 displays Wingate's enrollment by race/ethnicity, and generally shows that there is an elevated minority status in enrolled students when compared to the state average. The largest discrepancies exist among the White and Hispanic subgroups, in which the Hispanic subgroup represents $38 \%$ in the district compared to $17 \%$ statewide, and White represents $35.8 \%$ compared to $64.9 \%$ statewide.

Figure 9 displays student indicators that are considered risk factors for academic
success, including status as an English language learner, low-income status, and high needs status. A student is categorized as high needs if he or she is designated as low income, ELL, former ELL, or a student with disabilities. A former ELL student is a student not currently an ELL, but had been at some point in the two previous academic years (Massachusetts Department of Elementary and Secondary Education, n.d.-c). Wingate Public's average of $81.4 \%$ high needs students compared to the statewide average of $48.8 \%$ is striking ( $32.6 \%$ higher), and indicates that a systematic, tiered approach for addressing problematic attendance concerns is crucial for providing increased access to instruction for all students.


Figure 8: District Enrollment by Race/Ethnicity (2013-2014)


Figure 9: District Student Indicators (2013-2014)

## District Attendance Initiatives

The oversight and monitoring of student attendance interventions in Wingate Public has been primarily delegated to school adjustment counselors (school social workers) who work within the Child Study Department. In addition to adjustment counselors, school psychologists are included in this department. School adjustment counselors also hold the license of Supervisors of Attendance (SOA) with the Massachusetts Department of Elementary and Secondary Education (Commonwealth of Massachusetts, n.d.-a). The attendance responsibilities held by adjustment counselors in Wingate is one of many job responsibilities they hold, others of which include crisis management, family engagement, conducting student evaluations, and as members of planning teams for school-wide and student-specific interventions.

Within the Child Study Department in the Wingate Public Schools, a group of
adjustment counselors, including myself, formed a "Best Practices" group during the 2012-2013 school year to identify attendance interventions performed across the district, and categorize these interventions within a three-tiered model (see Figure 10). The purpose of this professional collaborative effort was to identify effective attendance interventions being used within the district in order to replicate these efforts to improve student attendance outcomes. The list of practices is not exhaustive, but the group members contacted adjustment counselors within the district to capture the most frequently utilized attendance interventions across the district. The work product of this group, which was a packet of information about practices as well as sample letters that can be used to communicate with families of students, has been used to train both new and veteran adjustment counselors in the district in techniques to address problematic student attendance patterns in a systematic manner.


Figure 10: Wingate Public Schools Tiered Attendance Interventions
At the beginning of the 2013-2014 school year, Wingate Public Schools announced the launch of the "Attendance Matters" campaign with a press conference.

The campaign represents an increased focus by the school district to work towards improved attendance outcomes for all students district-wide. Flyers and pamphlets have been generated through Attendance Matters in order to educate parents/guardians about the importance of establishing positive attendance patterns for their child. The campaign also uses research to outline precise parameters for what the district administration considers to be problematic attendance. For example, one pamphlet indicates that 14 absences yearly are considered severe and as indicating the need for intervention by the district's Supervisors of Attendance. This number is consistent with Wingate Public's attendance/truancy policy. The Wingate Public Schools website includes information for parents/guardians called "Attendance Matters Facts" (see Figure 11) in which research is cited related to the detrimental effects of chronic absenteeism, as well the recommendation that intervention approaches be tailored for the specific circumstances of each student and family. At this time, the Attendance Matters campaign has not had an impact on the practices of the SOA's in Wingate. Given that it is in its first year of implementation, the Attendance Matters campaign has served primarily to provide information for parents/guardians about the impact of chronic attendance problems on academic performance via print and online materials.


#### Abstract

Attendance Matters Facts: Improving attendance and reducing chronic absence is not rocket science, but it does take commitment, collaboration and tailored approaches to the particular challenges and strengths of each school community. Across the nation, schools, communities and advocates have successfully taken steps to ensure children are attending school more regularly.

Our best investments in instruction and curriculum won't matter much if students aren't in class to benefit from them. We need to ensure that all students are in class regularly so they have an equal opportunity to learn. School leaders can reach out more frequently to families to learn what barriers may be interfering with students getting to school.

A growing body of research reveals the prevalence of chronic absence and its critical role in student achievement. This research also shows that chronic absence can be addressed when school districts, communities and policymakers work together to monitor the problem and implement solutions that address the underlying causes.

Poor attendance can be a problem for very young children, not just those in secondary schools. National data show one in 10 kindergartners are chronically absent. Research shows children who miss too much school in the early grades are more likely to do worse academically and have poor attendance in later years.


Figure 11: Attendance Matters Campaign Tips from District Website
Wingate Public has begun to make baseline and comparative data (between
subsequent school years) available to school principals in order to embed the use of attendance and other data into building-level decision-making. Some principals make this data available to faculty and staff in order to keep them informed about their school's data trends. Data points included in these biannual reports related to attendance include:

- Attendance percentage (number of days attendance over total number of school days)
- Number of students who have been absent 1, 2-4, 5-9, 10-14, 15-24, 25-49, and $50+$ school days
- Attendance patterns by demographic subgroups (e.g. gender, ethnicity/race, SPED status, low income status, etc.)
- Average number of tardies per student (per school)

The inclusion of these attendance data points in the report indicate that the school district is emphasizing not only decreasing absences, but also decreasing student tardiness. These
data points were not as readily accessible in the Wingate Public Schools historically, and the increased ease with which both administrators and supervisors of attendance can access this data will increase the likelihood of data-informed decision-making occurring at both the school and district level related to student attendance interventions.

## District Elementary Attendance Policy

The intervention program to be evaluated in the study is implemented in selected elementary schools in the Wingate Public Schools, and for this reason, only the elementary school attendance policy will be covered in this section. The school district has separate attendance policies for elementary (grades Kindergarten - $6^{\text {th }}$ grade), middle (grades $7-8$ ), and high schools (grades $9-12$ ), and each has variations depending on the age group of students and related developmental factors.

Wingate Public Schools' "Attendance/Truancy Policy" (see Appendix F for complete policy) is aligned with the attendance accountability requirements of the NCLB ("No Child Left Behind (NCLB) Act of 2001," 2002). The elementary (Kindergarten through $6^{\text {th }}$ grade) policy includes the following introduction:

Inherent in the standards is an understanding that parents and the school need to work together in encouraging pupil attendance on each day that school is in session. Attendance emphasis in the elementary schools recognizes developmental factors of educational growth and responsibility.

Punctuality and regularity of attendance are important to the child from the very first day of school. The earlier a child learns that school is her/his job and that she/he has something important to do, the more satisfactory will be her/his growth and development.

The spirit of the elementary attendance policy is that collaboration between school staff and parents is crucial in order to foster positive student attendance habits from an early age. The expectations on the student should be developmentally appropriate depending on the age of the student according to Wingate's policy. For example, it would not be
reasonable to put the responsibility of being on-time for school on a Kindergarten student who is 5-6 years old, but it may be appropriate to give at least partial responsibility to a $6^{\text {th }}$ grade student who is 11-12 years old. The excerpt from the Wingate Public Schools policy handbook also stresses the impact that attendance patterns, including tardies, have on a student's growth and development in both the short and long-term. This is supported by the empirical literature cited earlier in the literature review, and makes logical sense when considering the establishment and perpetuation of behavioral patterns.

The next section of the elementary attendance policy outlines the specific guidelines for what the district considers to be problematic attendance:
a. A student shall not be repeatedly absent from school without legitimate cause. A student enrolled is expected to be present and punctual each day school is in session. Parents/guardians will report each absence by telephone prior to the absence or by written note within two (2) days.
b. Fourteen (14) absences per year will be considered excessive. Excessive absences may result in retention according to the Promotional Policy of the Public School system.

The preceding excerpt provides guidelines for both parents/guardians and school staff, namely the Supervisor of Attendance, for what is considered to be problematic attendance in the Wingate Public Schools (14 absences in a school year, or a $91.1 \%$ attendance percentage). Providing a common definition for problematic attendance in all elementary schools across Wingate is an important first step when considering the implementation of a tiered intervention model to address chronic negative student attendance patterns.

The policy then describes the interventions that are to be implemented by the school when student absences reach specific thresholds:
a. After five (5) unexcused absences, the principal (or his/her designee) will notify the parent or guardian in writing and, when appropriate, request a meeting with
parent(s)/guardian(s) to discuss the student's attendance.
b. Each elementary school will develop and announce to parents/guardians its procedures for improving the attendance of those students who have more than five (5) unexcused absences during the school year. The school procedures may include the following options, as needed: parent/guardian conference(s), Student Support Process meetings, referral to school nurse, referral to Child Study personnel, referral to social service agencies, a petition to the court, withdrawal of privilege to attend a non-district school or program, a mandated behavior modification plan, demerits, and/or detention.
c. When a student accumulates eight (8) or more unexcused absences within an academic quarter (or term), the principal (or his/her designee) may file a Child Requiring Assistance (CRA) truancy application with the Juvenile Court.
d. When a student accumulates seven (7) or more absences within a six-month period, the principal through the Supervisor of Attendance may file an Adult Failure to Cause School Attendance complaint against the parent at the $* * * *$ County Juvenile Court. In conjunction with this, a 51A report of educational neglect may also be filed with the Department of Children and Families (DCF).

- The school will exercise judgment in justification for illness, extended hospitalization, or placement out of home during which school attendance is not reasonably expected.

This portion of the policy lists possible interventions that can be implemented by schools to address problematic attendance patterns both at the school-level and state-level agencies such as the criminal justice system (e.g. Juvenile Court) and through child protective services (e.g. DCF).

The final bullet is crucial in that it allows school administration to "exercise judgment in justification" of student absences when "school attendance is not reasonably expected." This clause gives significant leeway to school principals to consider the specific circumstances surrounding a student absence and whether or not it is reasonable for the school to require the child's attendance on the impacted school days. The autonomy granted to schools to determine the validity of student absences and subsequently whether or not they should be coded as excused or unexcused is often a
source of disagreement between parents/guardians and school staff, namely Supervisors of Attendance. Sorting out these disagreements while continuing to promote the message that regular student attendance is a crucial aspect of academic success is the responsibility of the Supervisors of Attendance that are assigned to every elementary school within the school district, and successfully resolving these complex situations requires great skill and finesse on the part of the SOA.

The last section of the elementary school attendance policy lists absence reasons that are always coded as excused, and those reasons are:

- Religious holy days
- Death in the student's immediate family
- Up to two (2) days of absence due to foreign travel (with a note from a parent/guardian)

Although this list excludes many events that could be considered a reasonable absence (e.g. hospitalization or other illness of student, death of an extended family members, etc.), the flexibility provided in the previous section of the policy allows for schools to code such absences as excused if it is deemed that school is attendance is not reasonably expected. The final sentence of the policy encourages families to plan vacations on nonschool days and to schedule appointments when school is not in session.

The inherent flexibility in Wingate's attendance/truancy policy for elementary school students places a heavy burden on school staff to take care in making informed decisions about the validity of student absences and tardies. This is a labor-intensive process that implies regular two-way communication (an indicator of family engagement) between the school and the family of the student to determine the root cause(s) of the student's absences. Many elementary schools within Wingate have formalized this
process of communicating with families through the Tier 2 attendance intervention program described in this paper. This systematic approach to address problematic attendance patterns is a way in which schools can adhere to their responsibilities outlined in the attendance policy, as well as to ensure that communication is established and maintained between home and school, especially when Tier 1 interventions have been unsuccessful in establishing these lines of communication.

## Tier 2 Attendance Intervention Student Demographics

The Tier 2 Attendance Intervention program, called "Fresh Start," is a partnership between the Wingate Public Schools and an outside community agency. The program was first started during the 2011-2012 school year in January of 2012, and was designed to provide support to families of students in eighteen elementary schools within Wingate exhibiting chronic attendance problems, and with whom the school has had difficulty communicating despite attempts (commonly referred to as "disengaged families").

A goal of the program is to decrease court referrals for Children Requiring Assistance (CRA) and Adult Failure to Cause (ADF). The school district typically files a 51A report with the Department of Children and Families (DCF) alleging educational neglect in conjunction with the filing of an ADF, so the program aims to decrease both of these referrals.

The constellation of the team varies by school, but at minimum, the team consists of:

1. Parent/Guardian of student,
2. District Truancy Prevention Specialist (TPS),
3. Outside community agency family advocate, who is bilingual (Spanish and English),
4. School adjustment counselor/social worker based within the building.

Depending on the preference of school staff and/or student parents/guardians, the following people may be present at the meeting as well:

1. Student(s),
2. School administrator(s) (Principal and/or Assistant Principal),
3. Other people invited by the student's family,
4. School nurse.

The program description indicates that the meeting can be held at the school, the student's home, or at an office building within Wingate depending on individual circumstances.

According to a written program description for Fresh Start, interventions are recommended at the meeting, and follow-up meetings are arranged as needed. The school-based adjustment counselor and the TPS, who is also a school adjustment counselor, communicate with one another following the meeting in order to track attendance outcomes for the student following the intervention. Parent/guardian participation in the meeting is voluntary, and they can opt to not take part in the intervention if they choose.

There are currently eighteen elementary schools within Wingate that have signed on to have access to the Tier 2 attendance intervention program (see Figure 12). There are fourteen other elementary schools that have access to a Tier 3 intervention program that involves both a representative from the Department of Children and Families (DCF) and Juvenile Probation, and this intervention is often used as a last attempt to resolve attendance problems prior to filing an ADF with Juvenile Court. There is one elementary school in Wingate Public that does not currently utilize any formalized tiered intervention programs to address problematic student attendance.


Figure 12: Wingate Elementary Schools with Tiered Attendance Interventions
Figure 13 and Figure 14 describe student demographics of the schools that have access to the Tier 2 attendance intervention program compared to district and state student demographic data. This study that will be will expand school-wide demographic data to take a deeper look at the subgroups of students that have received the intervention in its first two years of the program's implementation and the outcome results for each subgroup. Data points that will be particularly meaningful in relation to student academic performance are the students with disabilities, retention rate, and high needs indicators listed in Figure 14. This will be explained in greater detail in the next section.


Figure 13: Comparative Student Race/Ethnicity


Figure 14: Comparative Student SPED, Retention, and High Needs
Figure 15 and Figure 16 provide additional student demographic information
about the eighteen schools that have access to the Tier 2 attendance intervention program. The data points within (ELL student status, SES level, etc.) could be potentially useful in
the study for describing the demographic makeup of families who are being referred for the program.


Figure 15: Comparative Student ELL Demographics


Figure 16: Comparative Student Income Status
Figure 17 displays the average yearly attendance rate for the elementary schools with the program compared to district and state averages, as well as the percentage of
students who have more than nine unexcused absences within a school year at these schools compared to district and state data. It is this type of data that will be expanded upon in the study for each family and in aggregate form in order to determine the impact that the Tier 2 attendance intervention program has on student attendance outcomes in the short-term. Similarly, Figure 18 displays the average number of days absent for each student and provides another important data point when considering the impact of the program on attendance outcomes.


Figure 17: Comparative Student Attendance Rate, 9+ Unexcused Absences


Figure 18: Comparative Student Average Number of Days Absent (per student)

## Observations of Meetings

To supplement the written documents related to the attendance intervention program, I observed seven Fresh Start meetings in two different elementary schools in the district to gain more insight into the activities associated with the program. These meetings followed the same general format consistent with the collaborative problemsolving model, including the following components:

1. Introductions of team members
2. Problem identification
3. Problem analysis
4. Intervention development
5. Follow-up/Progress monitoring.

These basic elements were found to be present in all of the observed meetings. The TPS acted as the facilitator of the meeting, and generally directed the conversation to work towards a common goal (attendance problem remediation).

Goal setting was performed collaboratively with parents/guardians, and in
addition to goals, supports were often put into place to address the underlying root cause(s) of the attendance problem. For example, in one observed meeting, a mother of a first grade student with excessive tardies discussed her inability to ensure her child arrived to school on time because she worked in the morning and her boyfriend was in charge of getting the child to school. She also reported that he was unreliable in her opinion, but that she had no other options due to a lack of family and friends living near her. The family advocate, who is a standing member of the Fresh Start team, informed the parent about low-cost transportation options that would be available to her. After hearing about this option, the student's mother stated that she believed that this would alleviate the attendance problem. Arrangements were made in this meeting to sign the mother up for the transportation service so that it would begin during the following week of school. The mother appeared to be appreciative of the support and relieved that she would not have the daily stress associated with getting her child to school on time. This example is indicative of the highly individualized nature of the intervention development (DuBrino \& Irsfeld, 2009; Greene, 2011; A. Irsfeld \& T. DuBrino, 2009; J. A. Irsfeld \& T. M. DuBrino, 2009) which I observed in these meetings.

The observations of some of the meetings revealed collaborative problem solving teams that were addressing attendance problems, opening lines of communication between home and school, and increasing family engagement. One example occurred in a meeting in which a student's mother initially presented as very argumentative and defensive. The teacher, who was present at the meeting, responded by acknowledging how difficult it must be for the mother to come into a meeting with six people, many of whom she never met, to discuss her child's attendance. The mother then said that she was
upset about an allegation of abuse/neglect (51A report) that she believed was filed by the school several months earlier. The principal spoke up to say that the school did not file this report, and almost immediately, the parent appeared more relaxed, with her shoulders lowering and the tone of her voice becoming less agitated in nature. This particular meeting proceeded in a truly collaborative way now that the elephant in the room was discussed, and an agreement plan was developed with input from all team members, including the child's mother. As an observer, the meeting appeared to be a great opportunity for this parent to air her frustration with the school, receive information about school policies and her child's academic progress, and lay the foundation for more ongoing open two-way communication between school and home. In this study, I propose to explore the impact that these meetings have on attendance outcomes for these families.

All of the observed Fresh Start meetings provided parents with an empathicallydelivered combination of probing questions about the underlying cause(s) of the attendance problem, information about community supports and possible solutions, information about school policies, and forecasting the possible next steps if the attendance problem was not resolved. The team members observed in each meeting did not come across as judgmental in their attempts to question parents/guardians, and instead, there appeared to be sincere attempts to develop a full understanding of the root cause(s) of the attendance problem. Humor was used frequently in the observed meetings, and the use of humor often helped to break the tension and stress felt by parents/guardians in these meetings.

Self-disclosure was another tactic used by team members to decrease defensiveness in parents/guardians during the course of the observed Fresh Start
meetings. For example, the Truancy Prevention Specialist (TPS) frequently used selfdisclosure during meetings when parents/guardians revealed that their child was diagnosed with Attention Deficit-Hyperactivity Disorder (ADHD). The TPS would share relevant stories about her own child who is diagnosed with ADHD in an attempt to decrease the stigma associated with the diagnosis, and help the parent to realize that many parents struggle with the stress associated with having a child with a disability.

Encouraging and motivational language (Enea \& Dafinoiu, 2009; N/A, 2009) was used frequently by all team members during the observed Fresh Start meetings. One common message conveyed to parents was that a belief that it was possible for the attendance problem to be remedied. The word "we" was used frequently when discussing interventions, sending the message to parents that there was a need to work collectively to resolve the issue (the "it takes a village" mentality). The combination of team members conveying the belief to parents that not only was change possible, but that it would occur within a network of support including the assistance of members of the Tier 2 intervention team provided parents with a safety net that may not have been available to them prior to the meeting.

Additionally, every meeting that is held as part of the Fresh Start program has the TPS and family advocate from a community agency in attendance, which provides consistency of implementation between different schools. When intervention programs are decentralized and left to each school to implement as they see fit, there is a strong likelihood that the intervention will lose its core components at some schools and subsequently decrease in its fidelity of implementation. This effect would likely decrease the positive impact of the intervention program on student attendance outcomes. It can be
inferred that meeting facilitator (TPS) tailors her approach to the needs of each school (e.g. different team constellations, differing content of agreement plans), since it was observed that the intervention was adjusted depending on the needs of the family. However, having consistent core team members helps to preserve the integrity of the intervention program and the fidelity of implementation across all impacted schools.

The Fresh Start program serves as a useful focus for an evaluative research project to analyze the impact of the intervention on student attendance outcomes. My observations provide insight into some of the innovative and family-centered practices being employed within the context of the intervention meetings. The program is especially crucial in this school district being that the percentage of students with "high needs" (81.4\%), and regular school attendance is even more essential for students who may have increased difficulty compensating for the decreased time on learning experienced with high rates of absences and tardies.

## Feedback from AIP Team Members and Principals

The Truancy Prevention Specialist (TPS) has played a vital role in the design and implementation of Fresh Start, and has attended and facilitated every Fresh Start meeting held. The TPS has a unique perspective about the AIP because she has attended every meeting and has had the opportunity to witness the evolution of the program since its inception. Additionally, the TPS has developed Fresh Start and facilitated referrals made by schools. School principals also attend Fresh Start meetings frequently as well. Feedback was sought via email from the TPS and principals of schools where Fresh Start is implemented in order to provide preliminary qualitative data related to process outcomes (Weiss, 1998). Six principals as well as the TPS responded to this request and
provided feedback about their experience with Fresh Start. While this study focuses on quantitative attendance outcomes of the AIP, it is important to also examine through future research the qualitative experience of stakeholders, including all team members.

The responses received by principals indicated that they were pleased with the impact that Fresh Start has on student attendance outcomes, the value of the community agency presence on the team, and the effectiveness of the "kind but firm" approach of the TPS and family advocate in promoting successful attendance outcomes.

Responses received from principals indicated that they appreciated the perspective provided by both the TPS and family partner, since both team members were not embedded in the school. One principal stated:

I love that the Fresh Start meetings provide the family with another group of people than just individual school staff explaining to families the need to get their children to school.

In my experience as a school adjustment counselor, parents/guardians seem to tune out the messages sent to them by school administration and staff, especially repeated messages about problematic attendance. Given the chronic nature of attendance problems, school adjustment counselors and school administration often have to deliver the same message (variations of "you need to get your kid to school" message) to parents/guardians in a variety of different methods, including letters, phone calls, home visits, and in-school meetings. From the parent's perspective, it can feel as if they are being unfairly targeted by the school, and the original purpose of the communication (to promote improved attendance patterns) is clouded by growing contentiousness between home and school. Fresh Start team members who are not based in the child's school can serve as a neutral party to deliver the same message given by the school, possibly with
more positive outcomes.

Responses from principals also highlighted how they valued the presence of the family advocate from the community agency on the Fresh Start team. Principals mentioned the benefits of the support provided by the family advocate. One principal wrote:

The family advocate from the outside agency is able to offer families may resources in the community to help with their needs.

This quote indicates the realization that many principals, especially in high-needs school districts, have come to, and that is that the school alone cannot solve every problem. Supports outside of the school, such as community agencies and church groups, can help to meet the needs of students and their families.

Principals also recognized the power of the community agency's involvement in Fresh Start to help the school align and partner with families. Another principal wrote:

I have found that by offering community resources to parents, they see that we want to be part of the solution as well.

This response suggests that the presence of the family advocate on the Fresh Start team may be crucial in conveying the message to parents/guardians that the school recognizes that the root causes of attendance problems are not easily solved, and that the neutral input and involvement of the community agency, as well as the services offered in terms of case management and support related to basic needs, can help to improve attendance outcomes for referred students. Similarly, another principal responded by writing:

Having the outside agency present with a few options of support was comforting (for parents/guardians).

The comfort provided by the family advocate, as well as the Fresh Start meeting team generally, is an important starting point for building a collaborative partnership between school and home. The recognition that the comfort level of parents is integral in successfully remediating attendance problems is heartening, and indicates that principals involved in Fresh Start acknowledge the prerequisites of successful partnerships (trust, open communication, openness).

There is a recognition by school administrators that community partnerships provide a better approach for solving school-based problems, including attendance. Joyce Epstein (2001) wrote about the value of partnerships between families, schools, and community groups:

Research suggests that "partnership" is a better approach. In partnership, educators, families, and community members work together to share information, guide students, solve problems, and celebrate successes. Partnerships recognize the shared responsibilities of home, school, and community for children's learning and development. Students are central to successful partnerships (p. 4).

The student-centered goal-setting that occurs in Fresh Start meetings in collaboration with parents/guardians, school staff, and the community agency representation is a recognition of the shared responsibility of home, school, and the community to break patterns related to problematic student attendance.

Many responses from principals referenced the effectiveness of the approach employed by the TPS and family advocate to help parents/guardians to understand the severity of the attendance problem and to motivate them to make necessary changes to fix the problem. One principal responded by the request for feedback by stating:

I found the meetings effective. The approach (of the team) was kind but firm. While you were letting a parent know possible actions we could take, you were handing them resources to help them. You get much more from people that way.

This response highlights the importance of a "kind, but firm" approach, in which the parent/guardian is informed about the stark truth of court involvement if the problem continues, as well provided the support to make the necessary changes to fix the problem. This principal is indicating that there is a balance that needs to be found between support and coaxing parents/guardians to change habits that negatively impact their child's attendance. In my experience, parents who are resistant to making these necessary changes, who are often disengaged from the school as well, can become more willing to make positive changes when they understand that the school is close to filing with the Juvenile Court and the Department of Children and Families (Adult Failure to Cause and 51A reports respectively). However, this approach is only effective when the appropriate supports are put into place as well, and these resources are being put into place in the Fresh Start AIP according to principal feedback.

Another principal described the importance of the tone set in the Fresh Start meeting by the TPS and family advocate to be kind, but also firm:

Both the Truancy Prevention Specialist and family advocate approach families with a nurturing attitude but also make it clear that court is the final result if recommendations are not followed. These two people do not come across as "heavies," but as people who care and want to help.

This principal recognizes that the demeanor and approach of the TPS and family advocate, which is described as caring, nurturing, and sincere, is a crucial component to promote the success of the Fresh Start program. Another principal echoed this sentiment by describing the TPS and family advocate as "no nonsense, yet humane," and another
principal described the "calm and respectful demeanor" used by the TPS and family advocate as an important contributor to the success of the program.

Another response indicated that the Fresh Start program often serves as a sounding board for parents/guardians to air their frustration and anger about their perceived mistreatment by the school. These negative feelings held by parents about their child's school can serve as a significant barrier to successfully partnering with them, and it is important for schools to provide opportunities for ongoing two-way communication to resolve these perceptions. One principal stated:

These two people (TPS and family advocate) give the adult (parent/guardian) an opportunity to vent about their issues but quickly bring that adult back to the topic of "but you still have to get your child to school."

This principal appreciates the balance that exists in Fresh Start meetings between allow parents/guardians to "release the steam valve," as well as to redirect the parent back to the presenting problem of their child's attendance. In my experience, this balance cannot be achieved in the same way for each student or family, and it requires a "gentle" approach facilitated by a responsive, sensitive, and well-trained facilitator (e.g. Truancy Prevention Specialist) in order to maintain the focus (attendance) while opening lines of communication.

Responses from principals also suggested that the focus on the family unit was crucial to Fresh Start's success. One principal responded by stating:

Fresh Start is a wonderful program to assist parents with strategies in order to help not only their child, but also the whole family.

In my observations of Fresh Start meetings, I noted strategies that were developed collaboratively with parents/guardians that not only addressed the attendance problem,
but also served to improve aspects of the child's home life. One example of a strategy that served this dual purpose was the development of a schedule for a morning routine for a student who was chronically late for school. This schedule was intended to solve the problem of chronic tardiness, which is a school-based problem, but the schedule is also likely to have benefits in the home environment (e.g. decreased stress in the home, increased self-suffiency with the student). Principals recognize that the Fresh Start program is having a positive impact beyond what can be measured in attendance data, and this impact reaches beyond the school setting as well. Another principal stated, "I believe Fresh Start was a positive experience for our families," which further highlights the power of the intervention. Parents are being asked to attend a meeting at school to discuss a problem, and according to the perception of some principals, parents feel it was a positive experience.

Principals also shared their belief that Fresh Start has a positive impact on not only student attendance outcomes, but also their academic performance and achievement. One principal stated:

The TPS made a tremendous difference for our students whose parents/guardians attended the meeting. This, in turn, impacted classroom performance in positive ways.

Principals seem to recognize that the Fresh Start AIP's positive impact is not only found in improved attendance patterns, but also in academic outcomes. It is likely that this improvement in academic performance, seemingly prompted in part by the AIP according to this principal's comments, will hold positive outcomes in both the short and long-term.

A final point made by a principal in response to the request for feedback about Fresh Start emphasizes the way in which the intervention highlights a district and
schoolwide focus on the crucial importance of attendance. The principal stated:

I think that by having Fresh Start meetings, our parents see that Wingate Public Schools do in fact take attendance issues seriously.

This comment suggests that Fresh Start is valuable not only because of the positive impact it has on family engagement, student academic achievement, and student attendance outcomes, but also on helping parents recognize that the school district is also working to improve attendance outcomes, and that the effort exists in a larger context.

Finally, the Truancy Prevention Specialist described her feedback about Fresh Start and her perspective of the way that success of the intervention can be measured. She wrote:

Once we get a family to the table and listen to their concerns with the sincere intent to collaborate as a team to help with attendance and whatever other issues come up, the family will invest in change. Even if the attendance does not actually improve in some cases, as long as the family and school feel supported, that is a successful meeting in my view.

The comments made by the TPS, who has a unique vantage point of the AIP (from the inside out), echo the importance of taking a sincere approach to collaborating with parents/guardians around solving problems that arise with their child in school. The TPS states that this genuineness is crucial in order for families to "invest," or put in the necessary effort and time, in change. It takes sustained effort by the parent/guardian to make changes stop the cyclical nature of chronic attendance patterns. While school staff and community partners (family advocate) help in a supportive role to solve the attendance problem, most of the responsibility falls on the child's parent. The TPS also indicates that the Fresh Start team must "listen to their concerns," implying that the intervention meeting is an opportunity to engage in two-way communication, as opposed
to school staff dominating the direction of the conversation and leaving limited room for parent/guardian feedback.

The TPS also describes her view about how success is defined related to the Fresh Start AIP, and she believes that success cannot solely be measured by attendance outcomes. She believes that the meeting can be classified as successful if the family and school feel supported. Although not stated in her comments, it is likely that long-term outcomes (attendance, family engagement, academic achievement/performance) will improve even if there is not an immediate positive short-term outcome in one or all of these domains. The feeling of being supported by the school is an especially important indicator of family engagement, but one that is not specifically measured in the following study. Fresh Start serves to facilitate the opening of the lines of communication between home and school, and this alone can have a long-lasting positive impact on the efficacy of collaborative problem solving approaches and on academic and attendance outcomes as well. In summary, this study aims to objectively measure the impact of CPS meetings on the attendance outcomes of the students and families engaged in these processes.

## Research Methodology and Procedures

The study is an outcome evaluation of a Tier 2 Attendance Intervention Program (AIP) in the Wingate Public Schools called Fresh Start. Using existing data, the study will use the approach delineated in

Table 4 to determine the impact that the intervention program has on student attendance outcomes when compared to normal attendance trends for elementary school students who did not receive the intervention (see

Table 4).

Table 4: Outcome Evaluation Procedures
(Weiss, 1998, p. 183)

|  | Before Intervention Percentage (baseline) | After Intervention Percentage | Net Percentage Change |
| :---: | :---: | :---: | :---: |
| Notes | *Based on school days prior to intervention (minimum 30 days) *Calculated for each individual student referred to program | *Based on 20 school days following intervention (not including intervention day) |  |
| Calculation Formula Absences | $\begin{aligned} & \text { Days present / } 30 \\ & \text { (school days) } \end{aligned}$ | Days present / 20 (school days) |  |
| Calculation Formula Tardies | Days without being tardy / 30 (school days) | Days without being tardy / 20 (school days) |  |
| Absences | a\% | b\% | $b \%-a \%=y \%$ |
| Tardies | c\% | d\% | $d \%-c \%=z \%$ |
| If $y \%$ and/or $z \%$ is/are positive (above 0\%), then the intervention is successful for that case. |  |  |  |

## Objectives of the Study

The study is an outcome evaluation of a Tier 2 attendance intervention program currently being implemented in the Wingate Public Schools to collaboratively problemsolve with parents/guardians of elementary school students (Kindergarten through 6th grade). The program is employed when the requesting school has been unable to make contact with the parent/guardian of the student in order to address the attendance problem via a school meeting. The team includes school administration, faculty, and staff, the parent/guardian, and a representative from a community agency to work specifically with the parent/guardian in a support capacity. Demographic, student achievement, health, and academic services data will be used to determine changes in attendance outcomes following the intervention in the hopes of identifying trends/patterns within the dataset.

Table 5: Section of Program's Logic Model

| Outcomes - Impact |  |
| :---: | :---: |
| Short | Long |
| Cessation/improvement of <br> problematic attendance pattern, <br> increased family engagement, <br> increased student academic <br> achievement, less disruption to <br> learning environment | Increased student academic <br> achievement, <br> upward attendance trend |
| Increase family access to basic <br> needs, increase self-efficacy of <br> parent/guardian | Minimizing the impact of poverty <br> on student outcomes (both school <br> and career) |
| Identify post-intervention attendance <br> patterns, determine tiered <br> intervention necessary | Determine fidelity of <br> implementation for programmatic <br> improvement |
| Improved student attendance |  |
| outcomes | Increased family engagement, <br> increased student academic <br> achievement, |
| upward attendance trend |  |

The study will address Step 3 from Figure 19 to review the data that has been collected for student families that have received the intervention. The study will evaluate short-term attendance outcomes for students whose families have received the intervention, which is a part of the program's logic model (see Table 5). The Child Study department, which provides the Truancy Prevention Specialist (TPS) who facilitates the intervention program, has requested outcome data about the impact of the program on student attendance outcomes in order to make adjustments to the program as needed and refine data collection (Step 4 in Figure 19). I have designed the following research study based with input from the Child Study Department about their desired outcome results for the purposes of program improvement. I intend to expand even further the data sought by the department to provide a rich description of attendance outcomes through the lens of available student demographic data.


3 Review data. Are you doing what you planned? Are you affecting the need you identified?

Figure 19: Evaluation Cycle Diagram (American Academy of Pediatrics, 2006, p. 4)

## Participants/Stakeholders

Although the study will examine outcome data related to the Tier 2 attendance intervention program and there will be no human subjects, there has been consultation with relevant stakeholders, including:

- Administration from the WPS Child Study Department,
- Truancy Prevention Specialist,
- District-level administration (Chief Accountability Officer), and
- Administration and staff from the community agency.

The study represents an outcome evaluation that will yield data that has been requested by all of the stakeholders. Additionally, the study will likely yield data beyond what has been requested by stakeholders and will likely prove to be relevant to making modifications and adjustments to the current model and/or inform efforts to replicate the effort within and outside of Wingate. These stakeholders will be given copies of the final
paper and all presentations for their own use, and I will provide all charts, graphs, and tables to all stakeholders for their own use.

## Procedures

Permission has been obtained from the Wingate Public Schools' Office of Research and Accountability to perform the study, and all related forms have been reviewed and approved by the WPS Chief Research and Accountability Officer (see Appendix I). Access has been granted to the researcher by the WPS to attendance data for related students for the purpose of outcome analysis. Additionally, the school district's Chief Accountability and Research Officer has offered the assistance of a district staff member to extract relevant data for use in the study. Only relevant attendance and student/family demographic will be requested and reviewed by the researcher for the sole purpose of comparing attendance patterns prior to the meeting and after the meeting.

The researcher will keep all print study records in a locked safe at the researcher's home address when not being reviewed for research purposes. All documents used in this research study will be destroyed three (3) years after the close of the study.

All electronic files (including all databases, spreadsheets, and other electronic files) will not contain any identifying information for the school district, individual school, student, or student family members. Any computer hosting such files will also have password protection to prevent access by unauthorized users. Only the researcher, Brendan Keenan, will have access to the relevant passwords. At the conclusion of the study, the researcher may publish his findings. Information will be presented in summary format and participants will not be identified in the final research paper, research articles, or presentations. The Wingate Public Schools has granted permission for the name of the
program and the location of the school district to be shared in this paper, articles, and presentations.

## Data Analysis

The study will analyze attendance data prior to and after the implementation of the Tier 2 attendance intervention program. Statistical correlational tests will be conducted to determine the impact of the intervention program for all students and also for specific subgroups of students.

Baseline data will be calculated individually for each student based on the method described in

Table 6. Attendance outcomes are highly individualized and the impact of the intervention program on student attendance will be measured by the extent to which it disrupts long-standing patterns of student attendance problems, whether it is due to excessive absences, tardies, or both. By measuring the extent to which the intervention program has impacted attendance patterns for each student (percentage change), a comparative analysis will be able to be conducted between all subgroups and in aggregate form to determine the net impact of the program on both attendance indicators (absences and tardies).

Table 6: Baseline and Outcome Data Calculations
$\left.\begin{array}{|c|c|c|c|}\hline & \text { Baseline Data } & \begin{array}{c}\text { Short-Term Outcome } \\ \text { Data }\end{array} & \begin{array}{c}\text { Long-Term Outcome } \\ \text { Data }\end{array} \\ \hline \text { Absences } & \begin{array}{c}\text { Average attendance } \\ \text { percentage (days } \\ \text { present/total school days) for } \\ \text { school days before } \\ \text { intervention during the same } \\ \text { school year (minimum of 30 } \\ \text { school days) }\end{array} & \begin{array}{c}\text { Attendance percentage } \\ \text { (days present/total } \\ \text { school days) during 20 } \\ \text { school days following } \\ \text { intervention }\end{array} & \begin{array}{c}\text { Attendance percentage } \\ \text { (days present/total school } \\ \text { days) for entire school } \\ \text { year following }\end{array} \\ \text { intervention (180 school } \\ \text { days) }\end{array}\right]$

Student data was excluded from analysis if it met at least one of the following exclusion criteria:

1. If there was no improvement in either the attendance percentage or tardy percentage for the student in the 20 school days following the intervention.
2. If attendance data was not available for the school year following the intervention.
3. If there were not 20 or more school days in the same school year prior to the intervention to establish post-intervention data.
4. If there were not 30 or more school days in the same school year prior to the intervention to establish baseline data.
5. If the parent did not attend the intervention meeting.

The cases that remained $(\mathrm{n}=83)$ were used for the analysis of research questions 2 and 3 .
There were 123 students referred for the intervention program during the 2010-2011,
2011-2012, and 2012-2013 school years, and related data were analyzed to answer research question 1.

Non-parametric testing methods will be used to examine potential correlations between data elements. Parametric testing was ruled out due to the small sample size and the high likelihood that outliers would have a significant impact on results.

## Ethical Considerations

Careful consideration has been made to ethical considerations related to the study. The study meets the UMass Amherst Institutional Review Board (IRB) Exemption Category \#5 that states:

Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine:
(i) Public benefit or service programs;
(ii) Procedures for obtaining benefits or services under those programs;
(iii) Possible changes in or alternatives to those programs or procedures; or
(iv) Possible changes in methods or levels of payment for benefits or services under those programs.

The researcher has obtained approval for an exemption to the IRB review process. The study does not involve participation by human subjects. Informed consent will not need to be obtained from any individual or group since the outcome evaluation will be using existing district data for the purposes of making programmatic improvement and possible replication of the intervention program.

The researcher holds a current CITI certification in relation to the ethics of conducting research and protecting the rights of human subjects (see Appendix C), and is aware of the level of care that must be given to protect human subjects when performing educational and social research.

Results will be shared with the Wingate Public Schools and relevant stakeholders through their receipt of the final written document (dissertation) and all presentation materials (e.g. charts, graphs, tables, presentation files, etc.), but careful consideration will be made to ensure that there is no information that could be traced back to the family of the student or the student him or herself. All of these documents and presentations will
be made available to relevant stakeholders both electronically (via email and file sharing software, such as Dropbox) and by hard copy as requested. Stakeholders will be encouraged to contact the researcher to modify the format of the documents for the specific use of the stakeholder as a courtesy and a show of good faith to achieve a mutually beneficial outcome for all stakeholders as a result of the completion of the study.

Complete anonymity will be ensured for students and families by distilling data into aggregate form and taking care to not share specific identifying information about students and families.

## Internal and External Validity

Measures have been taken to ensure both internal and external validity for this case study in order to ensure that results are valid within the study itself as well as generalizable to what other school districts may reasonably expect when implementing tiered attendance interventions.

Internal validity will be maintained by establishing baseline data for each student individually based on their attendance data for 1-2 years prior to the intervention.

Attendance outcomes are largely subjective, and gauging whether or not the attendance intervention was successful will be based on whether or not the prior attendance pattern and its negative trajectory is disrupted. Internal validity will also be maintained by using standard measures of student attendance (tardy and absence percentages) across students to allow for outcomes data to be aggregated in the final report.

The study will be conducted within the Wingate Public Schools, a large urban school district in Massachusetts with regards to student enrollment. Outcome measures
will be analyzed for all schools participating in the Tier 2 attendance intervention program, which will provide for sufficiently varied settings in terms of demographics and location in the city. This will help to ensure that results will be less impacted by environmental variables in a specific school, and more linked to the impact of the intervention program on student attendance.

External validity will be maintained by first recognizing that attendance interventions programs must be tailored towards the unique circumstances faced by each student's family. This individualization is a crucial aspect of any successful intervention program. With this presupposition, the results of this study could help to inform the replication of similar Tier 2 attendance intervention programs in other school districts, including the analysis of outcomes following the implementation of the intervention.

## Delimitations

A first delimitation of the study is that the unit of analysis for this study is purposefully limited to a single attendance intervention program in an urban school district (Wingate, Massachusetts). Family engagement is especially challenging in urban, high need school districts, and practices that are effective in Wingate are likely to be effective in districts that serve students and families with less adverse socioeconomic circumstances.

A second delimitation is that only the students who received the intervention from the 2010-2011, 2011-2012, and 2012-2013 school years will be included in the data analysis portion of the study. This will allow for at least 1 full school year postintervention to be used to measure the potential impact of the intervention program on attendance outcomes (see Table 7).

Table 7: Pre-Post School Years

| Year of Intervention <br> Implementation | Post-Intervention <br> School Year |
| :---: | :---: |
| $2010-2011$ | $2011-2012$ |
| $2011-2012$ | $2012-2013$ |
| $2012-2013$ | $2013-2014$ |

A third delimitation of the study is that pre and post-academic performance outcomes will not be analyzed within the study, and the scope of the analysis will be delimited to attendance outcomes. However, it is likely that both short and long-term academic outcomes will improve for students with improved attendance outcomes following the intervention. Future studies may explore the relationship between changes in attendance patterns and academic outcomes related to this particular attendance intervention program.

A fourth delimitation of the study is that the "voices" of parents/guardians who participated in the intervention program were not included in the data collection or analysis. An in-depth evaluation should include the feedback of parents/guardians, since they are the most crucial stakeholders in the process. The deep analysis of student attendance outcomes in this study is a starting point to a larger evaluation of the attendance intervention program that could ultimately lead to future research involving the feedback of parents/guardians who participated in the intervention program.

## Limitations

The first limitation is that all of the meetings observed occur within the same urban school district in Massachusetts (Wingate Public Schools). Although a reasonable variation between schools is possible given that the program is active in eighteen schools across the district, the program is tailored to the needs of the school and the surrounding community. The basic design elements of the research study could be applied to other
school districts in an effort to determine if there are context-specific variables that should be considered when designing school-based intervention programs involving families. It is likely that subsequent studies related to collaborative problem-solving with families of students in public schools would highlight practice elements that could help school districts refine their approach.

The second limitation of the study is that it is not intended to be a comprehensive evaluation of all components of the intervention program, but rather an analysis of attendance outcomes following the intervention. Although a description of the program will be included in the final report, the intent of study is not meant to evaluate the structure of the program itself, but instead to focus on a portion of its logic model (outcomes) and evaluate those results.

A third limitation of the study is that a direct, causal link will not be able to be drawn between specific elements of the intervention program (i.e. collaborative problemsolving meetings) and changes in student attendance patterns. This will not be possible because of the deeply complex nature of attendance problems in elementary students and the related root causes. However, given the individualized method for which baseline data will be established for each student, it will be reasonable to conclude that consistent changes in attendance outcomes following the intervention can be primarily attributed to the impact of the attendance intervention program overall.

A fourth limitation of the study is that it will not include an analysis of the schoolbased efforts to remediate the attendance problem that occur pre and post-intervention by the Supervisor of Attendance (SOA) at the school. It is likely that the fidelity with which follow-up interventions are implemented by the SOA at the student's school will have an
impact on attendance outcomes, but for the purposes of this study, this variable will not be included when analyzing outcomes. It is assumed that these efforts are ongoing both before and after the intervention, and that they will be primarily conducted by the SOA.

A fifth limitation of the study is that there is a gap in the current scholarly research about standardized methods by which to analyze attendance outcomes. This study is a potential springboard for future research studies about the outcomes of tiered attendance intervention programs. Additionally, this research study, which will be conducted in an urban, primarily high-needs district, will inform efforts made in districts with similar demographics and struggles around the issue of declining student attendance.

A sixth limitation of the study is the lack of available longitudinal data related to student attendance outcomes following the intervention. This is a result of the intervention program being established only within the past four school years. However, the data to be analyzed in the study should provide information about the short-term impact of the intervention on student attendance outcomes, and will provide baseline data for the school district that can be compared to longitudinal student attendance data in the coming years.

A seventh limitation of the study is that it will not adequately capture the "art" of these types of interventions that occur within the context of the collaborative team meeting. This is an area that is crucial to the success or failure of a program, and should be explored in future research. This quantitative study will likely yield relatively superficial outcomes data when compared to a qualitative study that would illuminate the more subtle aspects of practice that have a direct link to the fidelity with which intervention programs are administered.

An eighth limitation is that the study will not look into the root cause(s) of the initial or ongoing attendance issue for each family. The root cause(s) can vary widely, and are sometimes compounded upon one another. However, an analysis of the impact of root cause(s) (risk factors) on student attendance outcomes following the intervention could become part of a future research study. For example, a family that is having difficulty meeting their basic needs (e.g. food, clothing, shelter) (Maslow, 1943) is likely to have ongoing issues with their child's attendance until these needs are met. A future study that examines the impact of risk factors on short and long-term outcomes would likely find that the impact of school-based attendance interventions would depend heavily on the severity of risk factors present for the student's family.

A ninth limitation of the study is that the intervention program that is the unit of focus for this study focuses on preschool through $6^{\text {th }}$ grade students (elementary school) at the time of the intervention. This delimitation of the study results from the criteria set for the program itself. Elementary school student attendance is a significant predictor for later attendance patterns (Alexander, Entwisle, \& Horsey, 1997; Barrington \& Hendricks, 1989; Ensminger \& Slusarcick, 1992), so early intervention attendance programs hold the most promise for breaking these patterns. Although middle and high school attendance interventions are often necessary to address problematic attendance patterns, this study focuses purposefully on the Fresh Start elementary school tier 2 attendance intervention program in the Wingate Public Schools.

A final limitation of the study is that due to the small sample size, it was not possible to test for interactions among variables. Disaggregating the data into subcategories (e.g. student ethnicity) did not yield enough cases in each category to meet
the minimum number required to draw sound conclusions. It is possible that in future studies involving more cases that interactions among and between variables could be tested.

## Significance of the Study

This study could be a potentially significant contribution to the body of research related to school-parent meetings, including but not limited to special education TEAM meetings, informal and formal parent-teacher conferences, Wraparound meetings, and any other problem-solving meetings. This study may help to provide a framework for meeting facilitation that should be included in all collaborative family-school meetings.

One of the primary difficulties with family engagement practice is that there has been a lack of guidance for how to apply theory to practice. The lack of an operational definition for family engagement has left school districts at a disadvantage for implementing effective strategies for engaging families. This study can help to advance the extent to which family engagement strategies are delineated and applied to practice within the public schools. This could help schools to fine-tune their embedded procedures and practices that relate to family engagement and collaborative problem solving.

Collaborative problem solving with families in school meetings is at the heart of family engagement techniques at school across the United States. The current family engagement research body has not adequately linked family engagement with collaborative problem solving activities. This study provides a potential launching pad for more studies that examine the link between family engagement outcomes and collaborative problem solving practices at the school level.

The results of this study could help the identified school district to improve upon
the intervention program by fine tuning aspects of the problem-solving process to improve attendance and engagement outcomes. Wingate Public Schools may also find opportunities for professional development related to collaborative problem solving and/or family engagement practice in order to increase fidelity of implementation.

## CHAPTER 4

## RESULTS

The following section includes data generated from the dataset in response to the research questions and hypotheses. The data generated provides demographic data about all students and families referred to the intervention program, attendance data for selected cases who received the intervention and showed improvement in either absences or tardies, and a preliminary exploration of interactions among subgroups of students and families and post-intervention attendance outcomes.

## Results for Research Question 1

The following section will include data related to the demographics of all students and families referred to the intervention program ( $\mathrm{n}=123$ ), and will address research question 1:

- What patterns exist among the demographics of families referred for the intervention program?


## Student and Family Demographics

Students/families can be referred to the intervention program for one of three reasons related to problematic attendance patterns:

1. Excessive absences
2. Excessive tardies
3. Excessive absences and tardies.

Most referrals (44.72\%) were made for excessive absences and tardies, following by referrals for absences only (31.71\%), and then excessive tardies only (23.45\%) (see Figure 20). The data analysis of outcomes in the next section will include outcomes related to both absences and tardies in order to assess the impact of the intervention on
both attendance indicators.


Figure 20: Reasons for Referral (all referrals)
Table 8 indicates that out of the 123 students and families referred to Fresh Start, only 10 cases (8.1\%) resulted in the school filing an Adult Failure to Cause (ADF) and a 51A report of suspected abuse or neglect. This means that $91.9 \%$, or 113 of the families referred to Fresh Start were successfully diverted from court involvement. Of the 123 students referred to the intervention program during 2010-2011, 2011-2012, and 20122013 school years, 101 (82.11\%) meetings were held with a parent/guardian in attendance (see Figure 21). The remaining 22 families (17.89\%) received an invitation to the intervention meeting by mail, but did not attend the intervention meeting. Figure 22 depicts the referral patterns by grade level. The highest concentration of referrals occurred during first grade (20.32\%), while the lowest concentration occurred in preschool ( $2.44 \%$ ). Compulsory education begins at the age of six in the state of Massachusetts, and all preschool students and some kindergarten students are below the age of six, which provides a plausible explanation for the referral pattern (Commonwealth of Massachusetts, n.d.-a). First grade is the first year in which all
students in the grade over six-years-old, and the first opportunity for schools to address problematic attendance patterns with parents.

Table 8: Adult Failure to Causes/51A's Filed for All Referred Families

|  |  |  |  |  |  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :--- | :--- | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
| Valid | ADF/51A filed | 10 | 8.1 | 8.1 | 8.1 |  |  |  |  |  |
|  | ADF/51A not filed | 113 | 91.9 | 91.9 | 100.0 |  |  |  |  |  |
|  | Total | 123 | 100.0 | 100.0 |  |  |  |  |  |  |



Figure 21: Parent Attendance for Intervention Meeting (all referrals)


Figure 22: Grade Level at Time of Intervention (all referrals)

Figure 23 shows the number of referrals for the intervention program by school year as compared to the number of actual intervention meetings held. The data indicate that there has been a yearly increase in the number of referrals and meetings held. The Wingate school district average attendance percentage of $95.1 \%$ is $4.1 \%$ higher than the average attendance percentage of students referred to the intervention program (see Figure 24). The attendance percentage is calculated by the number of days the student is present divided by the number of days school was in session. Tardies are not included in this percentage, and the school district does not currently track data related to student tardies, and consequently, this baseline data was not available for this study. Figure 25 provides a depiction of the low-income status of referred students compared to district averages. Low-income students are referred to the intervention program 14.8\% more frequently than the district average. This supports hypothesis 1c which states:

Students whose families are categorized as low-income will be referred more frequently than students who are not low-income when compared to district averages.


Figure 23: Referrals and Interventions by School Year


Figure 24: Average Attendance \% for Referrals and District


Figure 25: Low-Income Status of Referred Students and District Average
Students who are categorized as being of limited English proficiency (LEP)
comprise $22.76 \%$ of the referrals made to the intervention program (see Figure 26). This data indicate an underrepresentation of students and families whose first language is not English in referrals to the intervention program compared to what would be expected given district demographic data.


Figure 26: Referrals by Student Limited English Proficiency (LEP) Status
Table 9: Student's First Language

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Valid | English | 86 | 69.9 | 69.9 | 69.9 |
|  | Spanish | 26 | 21.1 | 21.1 | 91.1 |
|  | Portuguese | 4 | 3.3 | 3.3 | 94.3 |
|  | Vietnamese | 2 | 1.6 | 1.6 | 95.9 |
|  | Arabic | 1 | .8 | .8 | 96.7 |
|  | Albanian | 1 | .8 | .8 | 97.6 |
|  | Burmese | 1 | .8 | .8 | 98.4 |
|  | Other | 2 | 1.6 | 1.6 | 100.0 |
|  | Total | 123 | 100.0 | 100.0 |  |

Figure 27 provides a graphical depiction of referral trends in relation to student race and ethnicity compared to district averages. Hispanic students are referred to the intervention program more frequently ( $12.3 \%$ ) when compared to district averages.

African American and Asian students were referred less, as well as White students. The elevated referral rate for Hispanic students support hypothesis 1a, which states:

## Minority students/families (non-White) will be more frequently referred to the intervention program than White families when compared to district averages.

However, the relatively low referrals for African American and Asian students would not support this hypothesis.


Figure 27: Race/Ethnicity Percentages of Referred Students and District Average
Table 10 indicates the place of birth for students referred to the intervention program. The vast majority $(93.5 \%)$ of students referred were born in the state of Massachusetts, and $87.8 \%$ of students born in Massachusetts were born in the same city where the child attended school at the time of the intervention. The remainder of students (6.5\%) were born in another state in the United States, Puerto Rico, or in a country outside of the United States.

Table 10: Student's Place of Birth

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Valid | In district | 108 | 87.8 | 87.8 | 87.8 |
|  | Same state | 7 | 5.7 | 5.7 | 93.5 |
|  | Different state <br> within U.S. | 3 | 2.4 | 2.4 | 95.9 |
|  | Puerto Rico | 2 | 1.6 | 1.6 | 97.6 |
|  | Country outside <br> the U.S. | 3 | 2.4 | 2.4 | 100.0 |
|  | Total | 123 | 100.0 | 100.0 |  |

## Students with Disabilities

Students with disabilities, who are defined as either having a Section 504 accommodation plan (regular education) or an Individualized Education Program (IEP) (Special Education services), comprise a significant portion of students referred to the attendance intervention program (40.6\%) (see Figure 28 and Table 11). The prevalence of students with disabilities in the referrals for the intervention program indicate that negative attendance patterns related to both excessive absences and tardies are a significant concern at the elementary school level in the school district.


Figure 28: Special Education Student Percentage of Students and District Average

Table 11: Student's 504 Plan Status

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Valid | No 504 <br> plan | 107 | 87.0 | 87.0 | 87.0 |
|  | 504 plan | 16 | 13.0 | 13.0 | 100.0 |
|  | Total | 123 | 100.0 | 100.0 |  |

Figure 29 depicts the breakdown of SPED students to non-SPED students for referrals made to the intervention program, while Figure 30 shows a further analysis of the level of need for SPED students. This data indicate that $68.75 \%$ of SPED students referred to the intervention program have either moderate or high Special Education needs. This highlights further the depth of the educational risk factors present for many of the students referred to the intervention program.


Figure 29: Referrals by Special Education (SPED) Status (all referrals)


Figure 30: Student's Special Education Level of Need (SPED students only)

Table 12 shows that $65.6 \%$ of SPED students referred to the program are categorized as full inclusion, meaning that they receive all of their SPED services within the regular education classroom. $18.8 \%$ of SPED students referred to the intervention program are categorized as partially included, meaning that they receive some of their SPED services outside of the regular education classroom (e.g. pull-out service for direct instruction, speech/language therapy, etc.), but are normally placed in the regular education classroom. Finally, $15.6 \%$ of SPED students are placed in a substantiallyseparate classroom, which is a classroom comprised of all SPED students who are categorized as having a social or emotional disability, and typically, negative behavioral patterns, that precludes them from being placed in the regular classroom setting. Table 13 includes the disability category for each referred SPED student. A large portion of these students (34.4\%) are categorized as having a specific learning disability (SLD), following by students who are categorized as having a developmental delay (15.6\%).

Although the impact of learning and emotional disabilities on student attendance outcomes will not be explored specifically in this study, the extent to which students with disabilities are referred to the attendance intervention program is notable.

Table 12: Student's Special Education Placement

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Valid | Full inclusion | 21 | 17.1 | 65.6 | 65.6 |
|  | Partial inclusion | 6 | 4.9 | 18.8 | 84.4 |
|  | Substantially- <br> separate <br> classroom | 5 | 4.1 | 15.6 | 100.0 |
|  | 32 | 26.0 | 100.0 |  |  |
| Missing | Not a SPED <br> student | 91 | 74.0 |  |  |
| Total | 123 | 100.0 |  |  |  |

Table 13: Student's Special Education Disability Category

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | Intellectual | 3 | 2.4 | 9.4 | 9.4 |
|  | Autism | 4 | 3.3 | 12.5 | 21.9 |
|  | Neurological | 1 | . 8 | 3.1 | 25.0 |
|  | Developmental Delay | 5 | 4.1 | 15.6 | 40.6 |
|  | Communication | 4 | 3.3 | 12.5 | 53.1 |
|  | Emotional | 3 | 2.4 | 9.4 | 62.5 |
|  | Health | 1 | . 8 | 3.1 | 65.6 |
|  | Specific learning disability | 11 | 8.9 | 34.4 | 100.0 |
|  | Total | 32 | 26.0 | 100.0 |  |
| Missing | Not a SPED student | 91 | 74.0 |  |  |
| Total |  | 123 | 100.0 |  |  |

## Student Mobility

Referrals to the school attendance intervention program were made in fourteen elementary schools during the school years included in this study. The majority of these referrals ( $53.67 \%, 66$ referrals) were made by school adjustment counselors at three
schools (see

Figure 31 ). Of the 123 students referred, 14 students (11.3\%) were no longer attending school within WPS as of April 1, 2014 (see Table 14). Figure 32 depicts the mobility outcome for these students, the majority (57.14\%) continued to attend school in the same state in a public school system. Student mobility will be controlled in this study by eliminating students who were not attending the same public school district for the entire school year following the intervention in order to obtain valid outcome data.


Figure 31: School at Time of Intervention (all referrals)


Figure 32: Student Mobility Outcome (students who moved only)
Table 14: Current Student Enrollment

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | Student enrolled in <br> same school <br> district | 109 | 88.6 | 88.6 | 88.6 |
|  | Student enrolled in <br> a different school <br> district | 14 | 11.4 | 11.4 | 100.0 |
|  | Total | 123 | 100.0 | 100.0 |  |

## Student Achievement and Testing Results

Measure of Academic Progress (MAP) testing is conducted across the school district beginning with students in the second grade, and students are tested three times throughout the school year. Students are tested on grade-level content for both Math and Reading, and are ranked low, average, or high dependant on their test scores (Northwest Evaluation Association, n.d.).

For the 94 students who were tested in June, 2014 (29 students did not have rankings available), $75.5 \%$ were ranked as either "low" or "average" in Reading (see

Table 16). For the 95 students who were tested in June, 2014 (28 students did not have rankings available), $81.1 \%$ were ranked as "low" or "average" in Math (see Table 16). These data indicate that a significant number of students referred to the intervention program are either borderline or at-risk for academic underperformance.

Table 15: MAP Reading Performance Level (June, 2014)

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Valid | Low | 33 | 26.8 | 35.1 | 35.1 |
|  | Average | 38 | 30.9 | 40.4 | 75.5 |
|  | High | 23 | 18.7 | 24.5 | 100.0 |
|  | Total | 94 | 76.4 | 100.0 |  |
| Missing System | 29 | 23.6 |  |  |  |
| Total | 123 | 100.0 |  |  |  |

Table 16: MAP Math Performance Level (June, 2014)

|  |  | Frequency | Percent | Valid <br> Percent | Cumulative <br> Percent |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Valid | Low | 41 | 33.3 | 43.2 | 43.2 |
|  | Average | 36 | 29.3 | 37.9 | 81.1 |
|  | High | 18 | 14.6 | 18.9 | 100.0 |
|  | Total | 95 | 77.2 | 100.0 |  |
| Missing System | 28 | 22.8 |  |  |  |
| Total | 123 | 100.0 |  |  |  |

Student growth percentiles (SGP's) have been developed by the Massachusetts Department of Elementary and Secondary Education (DESE) as a means to measure student progress compared to changes in a student's MCAS scores to changes in MCAS scores of other students with similar scores in prior years. The DESE uses the terminology of "academic peers" for students with similar score histories as one another. The percentile indicates the extent to which the student grew in relation to his or her academic peers, so if the student has an SGP of 42, it indicates that he or she showed more growth in terms of MCAS test scores than 42 percent of his or her academic peers (Massachusetts Department of Elementary and Secondary Education, 2011).

Table 17 shows the available MCAS Math and English Language Arts (ELA)
SGP's for students who were referred to the attendance intervention program. The average ELA SGP for 56 students referred is 48.84 , while the average Math SGP for 57 referred students was 45.67 .

Table 17: MCAS ELA and Math Growth Percentiles (April, 2013)

|  | April 2013 MCAS <br> ELA Growth <br> Percentile | April 2013 MCAS <br> Math Growth <br> Percentile |
| ---: | ---: | :---: |
| Mean | 48.84 | 45.67 |
| $\mathbf{N}$ | 56 | 57 |
| Std. Dev. | 27.266 | 27.977 |

## Results for Research Question 2

The following section will include data related to the demographics of all students and families referred to the intervention program ( $\mathrm{n}=83$ ), and will address research question 2 :

- What impact does the Tier 2 attendance intervention program have on student attendance outcomes?

For research question 2, the following exclusion criteria delineated in the prior
Data Analysis section were applied to all cases:

1. If there was no improvement in either the attendance percentage or tardy percentage for the student in the 20 school days following the intervention.
2. If attendance data was not available for the school year following the intervention.
3. If there were not 20 or more school days in the same school year prior to the intervention to establish post-intervention data.
4. If there were not 30 or more school days in the same school year prior to the intervention to establish baseline data.
5. If the parent did not attend the intervention meeting.


Figure 33: Overview of Cases Eliminated from Analysis
These exclusion criteria were applied in order to eliminate cases from analysis if improvement was not noted (in order to determine if the positive change was sustained through the following school year) and to ensure that there were adequate available data to determine pre and post measures. Additionally, the exclusion criteria allowed for the analysis to be conducted only for the cases in which the intervention was conducted with fidelity, and a parent/guardian not attending the meeting would indicate that the intervention was not conducted with fidelity. Figure 33 displays the breakdown of cases that were eliminated due to a parent not attending the meeting ( 22 cases, $18 \%$ of all referred cases) and interventions that were conducted without improvement in either absences or tardies when compared to baseline percentages (18 cases, 15\% of all referred cases).

The remaining cases ( $\mathrm{n}=83,67 \%$ of referred cases) include only cases in which the intervention meeting was held with a parent and in which there was improvement in either the absence or tardy percentage when compared to baseline data (calculated using the 30 school days prior to the intervention and related percentages). Table 18 indicates
that ADF's/51A's were filed for only 6 (7.2\%) of these cases, and that 77 (92.8\%) students and families were successfully diverted from court and DCF involvement. This result is significant in that it indicates that the Fresh Start AIP is not only improving attendance outcomes for these students, but that it is also helping to establish and maintain a positive relationship between school faculty and staff and the student's family by decreasing court and DCF involvement.

Table 18: Adult Failure to Causes/51A's Filed for Families Remaining After Exclusion Criteria Applied

|  | Frequency | Percent | Valid Percent | Cumulative Percent |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Valid | ADF/51A filed | 6 | 7.2 | 7.2 | 7.2 |
|  | ADF/51A not filed | 77 | 92.8 | 92.8 | 100.0 |
|  | Total | 83 | 100.0 | 100.0 |  |

Since $67 \%$ of all students referred to the intervention program showed improvement in either absences or tardies, hypothesis H2a is confirmed:

Student attendance will improve following the implementation of the intervention program for the majority of cases.

## Results for Absences

Changes in outcomes related to student absences were analyzed to determine if a correlation could be detected between post intervention outcome data (during the 20 school days following the intervention) and the attendance data for the student during the school year following the intervention (based on 180 school days). Figure 34 depicts a scatterplot of the change in absence percentage following the intervention (days present in school divided by 20) and the change in absence percentage in the school year following the intervention. Most of the points are tightly clustered with few outliers. Additionally, the data points indicate a slight positive correlation.


Figure 34: Scatterplot of Change in Absence Percentage (20 days post and year after intervention)

Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity, followed by bivariate non-parametric correlational analysis using Spearman's rho for the related absence data points (see Table 19). A strong positive correlation (.464) was found along with a high level of significance (. 000 2-tailed significance). The findings indicate that the percentage change in a student's absence percentage during the 20 school days following the intervention is a significant predictor of the student's absence outcomes during the school year following the intervention. Consequently, these data also indicate that a positive change in student attendance (decreased absences) following the Tier 2 intervention program has a positive impact on at least the subsequent school year in terms of attendance outcomes.

Table 19: Correlation of Change in Absence Percentage (20 days post and year after intervention)

|  |  |  | Change in absence \% 20 days following intervention | Change in absence \% post Year 1 |
| :---: | :---: | :---: | :---: | :---: |
| Spearman's rho | Change in absence \% 20 days following intervention | Correl. Coeff. | 1.000 | . $464{ }^{* *}$ |
|  |  | Sig. (2-tailed) |  | . 000 |
|  |  | N | 83 | 83 |
|  | Change in absence \% post Year 1 | Correl. Coeff. | . $464{ }^{* *}$ | 1.000 |
|  |  | Sig. (2-tailed) | . 000 |  |
|  |  | N | 83 | 83 |

**. Correlation is significant at the 0.01 level (2-tailed).
Data were not available for all cases for Year 2 following the intervention, so the analysis was not conducted to ensure that all data generated for Research Questions 2 and 3 were for the same matched cases.

## Results for Tardies

Changes in outcomes related to student tardies were analyzed to determine if a correlation could be detected between post intervention outcome data (during the 20 school days following the intervention) and the tardy data for the student during the school year following the intervention (based on 180 school days). Figure 35 depicts a scatterplot of the change in tardy percentage following the intervention (days without being tardy divided by 20) and the change in tardy percentage in the school year following the intervention. The scatterplot shows a tightly clustered set of data points in the middle with more outliers than were present for pre and post absence percentages (see Figure 34).


Figure 35: Scatterplot of Change in Tardy Percentage (20 days post and year after intervention)

Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity, followed by bivariate non-parametric correlational analysis using Spearman's rho for the related tardy data points (see Table 20). A strong positive correlation (.579) was found along with a high level of significance (. 000 2-tailed significance). The findings indicate that the percentage change in a student's tardy percentage during the 20 school days following the intervention is a significant predictor of the student's tardy outcomes during the school year following the intervention. Similar to the data in the previous section, these data also indicate that a positive change in student attendance (decreased tardies) following the Tier 2 intervention program has a positive impact on at least the subsequent school year in terms of attendance outcomes.

Table 20: Correlation of Change in Tardy Percentage (20 days post and year after intervention)

|  |  | $\begin{array}{c}\text { Change in } \\ \text { tardy \% 20 } \\ \text { Days } \\ \text { following }\end{array}$ | $\begin{array}{c}\text { Change in } \\ \text { tardy \% } \\ \text { post Year } \\ 1\end{array}$ |
| :--- | :--- | :--- | ---: | ---: |
| intervention |  |  |  |$]$.

**. Correlation is significant at the 0.01 level (2-tailed).
As was the case with data related to absences, data were not available for all cases for Year 2 following the intervention, so the analysis was not conducted to ensure that all data generated for Research Questions 2 and 3 were for the same matched cases.

The finding of significant positive correlations between initial percentage changes in absences and tardies confirms hypothesis H 2 b :

Improved student attendance patterns following the intervention (20 school days after intervention) will be positively correlated with improvements over baseline during the following school year.

## Results for Absences and Tardies

Table 21 shows the average percentage change in absences, both for 20 days following the intervention and in the first full school year after intervention, and the change percentage change in tardies, both for 20 days following the intervention and in the first full school year after the intervention for all cases that showed an improvement in absences and/or tardies. There has been a significant positive change on the average in all domains, with increases ranging from $2.322 \%$ to $7.722 \%$. Although the Year 1 percentages represent a decrease for both absences ( $-1.764 \%$ ) and tardies ( $-1.12 \%$ ), the
upward trend in both domains continued following the intervention.
Table 21: Aggregated Percentage Change in Absences \& Tardies (20 days following and Year 1)

|  | Change in <br> absence \% <br> 20 days <br> following <br> intervention | Change in <br> absence \% <br> post Year 1 | Change in <br> tardy \% 20 <br> Days <br> following <br> intervention | Change in <br> tardy \% <br> post Year 1 |
| :--- | ---: | ---: | ---: | ---: |
| Mean | 4.086 | 2.322 | 7.722 | 6.602 |
| $\mathbf{N}$ | 83 | 83 | 83 | 83 |
| Std. Dev, | 7.5110 | 5.5192 | 11.1751 | 9.3158 |

Figure 36 shows the breakdown of cases by reason for referral. Table 22 displays the average change in absences and tardies divided into the reasons for referral, including for absences only, tardies only, or for both absences and tardies. The most significant increases from baseline were found in the absences only category for initial change in absences $(8.420 \%)$ and in the tardy only category for initial change in tardies ( $15.721 \%$ ). These initial changes following the intervention are substantial and are based on 23 students for each category. The absences and tardies category also noted substantial average initial change in absence percentages (4.282\%) and tardy percentages (6.901\%). Although the improvements in absences and tardies for this referral reason were not as substantial when compared to the absences only and tardies only groups, the combined referral group did not regress as much in either absences or tardies when compared to the Year 1 post data for absences only and tardies only. In the absences and tardies group, absence percentage change only decreased by $1.073 \%$ and tardy percentage only decreased by $.897 \%$ when compared to baseline data percentages. This suggests that either the nature of the intervention provided to the combined group or the habitual changes made by the parent/guardian had a more lasting impact than the interventions and/or habit changes for the other two groups.


Figure 36: Reasons for Referral for Students with Attendance Improvement following Intervention

Table 22: Average Change in Absence and Tardy Percentage by Reason for Referral

| Reason for Referral to Intervention Program |  | Change in absence \% 20 days following intervention | Change in absence \% post Year 1 | Change in tardy \% 20 Days following intervention | Change <br> in tardy <br> \% post <br> Year 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Absences only | Mean | 8.420 | 3.997 | 1.043 | 2.914 |
|  | N | 23 | 23 | 23 | 23 |
|  | Std. Deviation | 8.0220 | 7.0744 | 8.1479 | 7.0563 |
| Tardies only | Mean | -. 564 | -. 781 | 15.721 | 11.252 |
|  | N | 23 | 23 | 23 | 23 |
|  | Std. Deviation | 5.0170 | 3.4642 | 10.7999 | 9.4958 |
| Absences and Tardies | Mean | 4.282 | 3.209 | 6.901 | 6.004 |
|  | N | 37 | 37 | 37 | 37 |
|  | Std. Deviation | 6.9237 | 4.7659 | 10.1262 | 9.4482 |
| Total | Mean | 4.086 | 2.322 | 7.722 | 6.602 |
|  | N | 83 | 83 | 83 | 83 |
|  | Std. Deviation | 7.5110 | 5.5192 | 11.1751 | 9.3158 |

Due to the small sample size and presence of a limited number of outliers, valid correlational statistics by student grade level at the time of intervention were not able to be generated. Student grade levels at the time of the intervention were recoded into a
"Primary" grouping (Preschool through 2nd Grade) and an "Intermediate" cluster to for an independent samples T-test to be conducted to determine if student grade level could be used to explain differences among average attendance outcomes following the intervention. There were no significant differences found for the following outcomes when comparing between primary and intermediate students:

- Change in absences (20 days after intervention)
- Change in tardies (20 days after intervention)
- Change in tardies (Year 1 following the intervention)

However, there was a significant difference found between the change in the absence percentage (compared to baseline) in the school year following the intervention between primary and intermediate students. Table 23 shows that primary students $(\mathrm{n}=37)$ had a $4.221 \%$ increase over baseline for absence percentage in the school year following the intervention, compared to a $.794 \%$ increase for intermediate students. Table 24 displays the results of an independent samples T-test that was conducted to determine the significance of the difference (. 005 two-tailed significance), which indicates a high level of significance between student grade level and the change in absence percentage when compared to the pre-intervention baseline absence percentage.

Table 23: Primary/Intermediate Grade Level Results (absences Year 1) Group Statistics for Independent Samples T-test

|  | Primary vs. Intermediate | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in <br> absence \% post <br> Year 1 | Primary (PK-2nd Grade) | 37 | 4.221 | 5.6528 | .9293 |
|  | Intermediate (3rd - 6th <br> Grade) | 46 | .794 | 4.9594 | .7312 |

Table 24: Primary/Intermediate Grade Level and Absence \% Change Over Baseline Post Year 1 for Independent Samples T-test


Primary students were shown to sustain improvement in absence percentage significantly better than students in intermediate grades at the time of the intervention. This result supports hypothesis 2 c (below) in terms of breaking problematic attendance patterns and the importance of intervening early:

The impact of the attendance intervention program on attendance outcomes will be more positive for younger students (in lower grades) than for older students (in higher grades).

## Results for Research Question 3

The following section will include data related to the demographics of all students and families referred to the intervention program ( $\mathrm{n}=83$ ), and will address research question 3:

- What impact does the Tier 2 attendance intervention program have on attendance outcomes for different demographic subgroups of students?

For research question 3, as was done with research question 2, the following exclusion criteria delineated in the prior Data Analysis section were applied to all cases:

1. If there was no improvement in either the attendance percentage or tardy percentage for the student in the 20 school days following the intervention.
2. If attendance data was not available for the school year following the intervention.
3. If there were not 20 or more school days in the same school year prior to the intervention to establish post-intervention data.
4. If there were not 30 or more school days in the same school year prior to the intervention to establish baseline data.
5. If the parent did not attend the intervention meeting.

## Demographic Data Points Lacking Statistically Significant Differences

Statistical analyses, specifically independent samples T-tests, were conducted for data points related to student and family demographics and patterns associated with changes in attendance patterns following the intervention for both absences and tardies. The following demographic data points were analyzed:

- Student Limited English Proficiency (LEP) Status (see Appendix I)
- Student's First Language (English/Non-English) (see Appendix J)
- Student Birthplace (see Appendix K)
- Student White/Non-White Status (see Appendix L)
- Student Family Income Status (see Appendix M)

In order to ensure sample sizes that were sufficient for analysis, data was condensed and recoded for the following data points, which also allowed for t -tests to be conducted (two dependent variables):

- Student's First Language
- English
- Non-English (includes Spanish, Portuguese, Vietnamese, Albanian, and Other)
- Student's Place of Birth
- In District (Wingate, MA)
- Outside of District (includes Same State, Different State Within U.S., Puerto Rico, and Country Outside of the U.S.)
- Student's Ethnicity
- White
- Non-White (includes Hispanic, Hispanic-White, African American, and Asian)

Table 9, Table 10, and Figure 27 provide the details of the constellation of the collapsed language, birth, and ethnicity categories.

Correlational analysis for the above-listed data points did not indicate any statistically significant difference between groups in terms of changes in absence and tardy percentage following the intervention. Additionally the magnitude of the differences in means for these data points was small. These results indicate that the demographic data points do not account for any differences between groups according to statistical analysis.

The results for family income status did not indicate any significance in the relationship between initial changes in absence and tardy percentages and the student family's income status. Similarly to other data points in this study, it is possible that a larger sample size could allow for a more detailed analysis of possible correlations between response to attendance interventions and student ethnicity. Given this result, hypothesis 3 a (below) is not confirmed:

Students who are categorized as being low-income will have less positive attendance outcomes following the intervention than students who are not low-income.

## Student Gender

Statistical analyses, specifically independent samples T-tests, were conducted for
data points related to gender and patterns associated with changes in attendance patterns following the intervention in terms of both absences and tardies. Recoding of data was not necessary in order to conduct t -tests (gender is 2 categories).

An independent-samples t-test was conducted to compare the percentage change in absences in the 20 school days following the intervention for male and female students. There was a significant difference in absence percentage change for male students $(M=6.854, S D=6.1750)$ and female students $(M=1.633, S D=7.7962 ; t=$ $3.352, p=.001$, two-tailed). The magnitude of the differences in the means (mean difference $=5.2206,95 \% C I: 2.1217$ to 8.3196$)$ was large, with an eta squared of .12 , indicating a moderate to large effect (see Table 25 and Table 26).

Table 25: Student's Gender (absences) Group Statistics for Independent Samples T-test

|  | Sex of <br> Student | N | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | :--- | ---: | ---: | ---: |
| Change in absence \% 20 <br> days following <br> intervention | Male | 39 | 6.854 | 6.1750 | .9888 |
|  | Female | 44 | 1.633 | 7.7962 | 1.1753 |

Table 26: Student's Gender (absences) Independent Samples T-test Results

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | $\overline{95 \%}$ <br> Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% | Equal variances assumed |  | . 745 | . 391 | 3.352 | 81 | . 001 | 5.2206 | 1.5575 | 2.1217 | 8.3196 |
| following interventio n | Equal <br> variances <br> not <br> assumed |  |  | 3.399 | 80.039 | . 001 | 5.2206 | 1.5359 | 2.1641 | 8.2772 |

An independent-samples $t$-test was conducted to compare the percentage change
in tardies in the 20 school days following the intervention for male and female students.
There was not a significant difference in tardy percentage change for male students ( $M=$ 5.910, $S D=9.8940)$ and female students $(M=9.328, S D=12.0839 ; t=-1.399, p=.166$, two-tailed). The magnitude of the differences in the means (mean difference $=-3.4186$, $95 \% C I:-8.2804$ to 1.4432 ) was small, with an eta squared .02 , indicating a small effect (see Table 27 and Table 28).

Table 27: Student's Gender (absences) Group Statistics for Independent Samples T-test

|  | Sex of <br> Student | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in absence \% 20 <br> days following <br> intervention | Male | 39 | 6.854 | 6.1750 | .9888 |
|  | Female | 44 | 1.633 | 7.7962 | 1.1753 |

Table 28: Student's Gender (absences) Independent Samples T-test Results

|  |  | Levene's <br> Test for <br> Equality of Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | $\overline{95 \%}$ <br> Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% | Equal variances assumed |  | . 745 | . 391 | 3.352 | 81 | . 001 | 5.2206 | 1.5575 | 2.1217 | 8.3196 |
| following interventio n | Equal <br> variances <br> not <br> assumed |  |  | 3.399 | 80.039 | . 001 | 5.2206 | 1.5359 | 2.1641 | 8.2772 |

Because mean percentage changes in initial absence outcomes were found to be significantly different according to the $t$-test, an independent samples $t$-test was also conducted to compare the percentage change in absences in the school year following the intervention for male and female students. There was a not significant difference in absence percentage change for male students $(M=2.746, S D=6.3514)$ and female
students ( $M=1.946, S D=4.7045 ; t=.656, p=.513$, two-tailed) in the year following the intervention. The magnitude of the differences in the means (mean difference $=.7996$, $95 \%$ CI: -1.6240 to 3.2231 ) was small, with an eta squared of .01 , indicating a small effect (see Table 29 and Table 30).

Table 29: Student's Gender (absences Year 1) Group Statistics for Independent Samples

|  | Sex of <br> Student | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in absence <br> \% post Year 1 | Male | 39 | 2.746 | 6.3514 | 1.0170 |
|  | Female | 44 | 1.946 | 4.7045 | .7092 |

Table 30: Student's Gender (absences Year 1) Independent Samples T-test Results

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error <br> Difference | $\overline{95 \%}$ <br> Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% post Year 1 | Equal variances assumed |  | 1.094 | . 299 | . 656 | 81 | . 513 | . 7996 | 1.2181 | -1.6240 | 3.2231 |
|  | Equal variances not assumed |  |  | . 645 | 69.434 | . 521 | . 7996 | 1.2399 | -1.6737 | 3.2729 |

While there was a significant different found between male and female students in absence percentage change in the 20 school days following the intervention, there was no significant change found between student genders in the percentage change over baseline in the following school year. This finding indicates that the change in student absence patterns in the year following the intervention level out between genders to the point where no significant difference can be detected.

## Students with Disabilities

Independent samples T-tests were conducted for data points related to student
disability status and patterns associated with changes in attendance patterns following the intervention for both absences and tardies. Recoding of data was necessary in order to conduct t -tests.

In order to ensure sample sizes that were sufficient for analysis, data for SPED students and students with a 504 plan (regular education accommodation plan for students with a disability) were condensed and recoded in the "Disability Status" category in order for t -tests to be conducted:

- SPED Status
- SPED Students (including students currently being evaluated for SPED)
- Non-SPED Students (including students who previously were SPED students)
- 504 Status
- No 504 Plan
- Student has 504 Plan
- Disability Status (combined SPED students and students with 504 plan)
- Student with Disability (includes SPED students and students with 504 plan)
- Student without Disability (includes all non-SPED and 504 students)

Figure 37 shows the average change in absence and tardy percentages in the 20 school days following the intervention for both SPED and non-SPED students. The data indicate that SPED students showed more percentage improvement for absences ( $M=$ $5.87 \%)$ than non-SPED students $(M=3.44 \%)$. However, non-SPED students showed more percentage improvement for tardies $(M=8.24 \%)$ than SPED students ( $M=$ 6.29\%).


Figure 37: Average Absence/Tardy Percentage Change for SPED/Non SPED Students

Figure 38 depicts the average change in absence and tardy percentages in the 20 school days following the intervention for both students with a 504 plan and students without a 504 plan. The data indicate that students with a 504 plan showed substantially more percentage improvement for absences $(M=7.42 \%)$ than students without a 504 plan $(M=3.46 \%)$. However, students without a 504 plan showed substantially more percentage improvement for tardies $(M=8.87 \%)$ than students with a 504 plan $(M=$ $1.54 \%)$. This trend is similar to the trend that was found with SPED and non-SPED students.


Figure 38: Average Absence/Tardy Percentage Change for Students With and Without 504 Plans

Figure 39 depicts the average change in absence and tardy percentages in the 20 school days following the intervention for students with disabilities (combined SPED and 504 students) and students without a disability. The data indicate that students with disabilities showed substantially more percentage improvement for absences $(M=$ $6.75 \%)$ than students without a disability $(M=2.24 \%)$. Similar to previous results, students without a disability showed substantially more percentage improvement for tardies $(M=9.9 \%)$ than students with a disability $(M=4.6 \%)$.


Figure 39: Average Absence/Tardy Percentage Change for Students With and Without a Disability

Given these results, an independent-samples t-test was conducted to compare the percentage change in absences in the 20 school days following the intervention for students with disabilities (combined SPED and 504 students) and students without a disability. There was a significant difference in absence percentage change for nondisabled students $(M=2.239, S D=7.1734)$ and disabled students $(M=6.748, S D=$ 7.2780; $t=-2.80, p=.006$, two-tailed). The magnitude of the differences in the means $($ mean difference $=-4.5089,95 \% C I:-7.714$ to -1.304$)$ was moderate, with an eta squared of .08 , indicating a moderate effect (see Table 31 and

Table 32).

Table 31: Student Disability Status Group Statistics for Independent Samples T-test (Absence \% Change 20 Days Post Intervention)

|  | Student <br> Disability <br> Status | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in absence \% 20 <br> days following intervention | Non-disabled | 49 | 2.239 | 7.1734 | 1.0248 |
|  | Disabled | 34 | 6.748 | 7.2780 | 1.2482 |

Table 32: Student Disability Status Independent Samples T-test Results (Absence \% Change 20 Days Post Intervention)

|  |  | Levene's <br> Test for <br> Equality <br> of <br> Variances <br> F |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | $\begin{gathered} \text { Sig. } \\ \text { (2- } \\ \text { tailed) } \end{gathered}$ | Mean Difference | Std. Error <br> Difference | $95 \%$ <br> Confidence <br> Interval of the <br> Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% | Equal variances assumed |  | . 623 | . 432 | -2.80 | 81 | . 006 | -4.5089 | 1.6107 | -7.714 | -1.304 |
| 20 days following intervention | Equal variances not assumed |  |  | -2.79 | 70.470 | . 007 | -4.5089 | 1.6149 | -7.729 | -1.288 |

An independent-samples t-test was also conducted to compare the percentage
change in tardies in the 20 school days following the intervention for students with disabilities (combined SPED and 504 students) and students without a disability. There was a significant difference in tardy percentage change for non-disabled students ( $M=$ 9.895, $S D=10.9917$ ) and disabled students $(M=4.590, S D=10.8378 ; t=2.175, p=$ .033, two-tailed). The magnitude of the differences in the means (mean difference $=$ $5.3054,95 \% C I: .4517$ to 10.1592 ) was moderate, with an eta squared of .06 , indicating a moderate effect (see Table 33 and Table 34).

Table 33: Student Disability Status Group Statistics for Independent Samples T-test
(Tardy \% Change 20 Days Post Intervention)

|  | Student <br> Disability Status | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Change in tardy <br> \% 20 Days <br> following <br> intervention | Non-disabled | 49 | 9.895 | 10.9917 | 1.5702 |
|  | Disabled | 34 | 4.590 | 10.8378 | 1.8587 |

Table 34: Student Disability Status Independent Samples T-test Results (Tardy \% Change 20 Days Post Intervention)

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | $\begin{array}{\|c} \text { Sig. } \\ \text { (2- } \\ \text { tailed) } \end{array}$ | Mean Difference | Std. Error Difference | 95\% <br> Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in tardy \% 20 | Equal variances assumed |  | . 088 | . 767 | 2.175 | 81 | . 033 | 5.3054 | 2.4395 | . 4517 | 10.1592 |
| Days following intervention | Equal variances not assumed |  |  | 2.180 | 71.778 | . 033 | 5.3054 | 2.4332 | . 4548 | 10.1561 |

Given the significant difference in percentage change in absences between students with and without disabilities in the 20 school days following the intervention, an independent-samples $t$-test was conducted to compare the percentage change in absences in the school year following the intervention for students with disabilities (combined SPED and 504 students) and students without a disability. There was a significant difference in absence percentage change for non-disabled students $(M=1.324, S D=$ 4.5719) and disabled students $(M=3.759, S D=6.4564 ; t=-2.013, p=.047$, two-tailed $)$. The magnitude of the differences in the means (mean difference $=-2.4346,95 \% C I$ : 4.8414 to -.0279 ) was moderate, with an eta squared of .05 , indicating a small to moderate effect (see

Table 35 and Table 36).

Table 35: Student Disability Status Group Statistics for Independent Samples T-test (Absence \% Change Year 1 Post Intervention)

|  | Student <br> Disability <br> Status | N | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in <br> absence \% post <br> Year 1 | Non-disabled | 49 | 1.324 | 4.5719 | .6531 |
|  | Disabled | 34 | 3.759 | 6.4564 | 1.1073 |

Table 36: Student Disability Status Independent Samples T-test Results (Absence \% Change Year 1 Post Intervention)


Finally, given the significant difference in percentage change in tardies between students with and without disabilities in the 20 school days following the intervention, an independent-samples t-test was conducted to compare the percentage change in tardies in the school year following the intervention for students with disabilities (combined SPED and 504 students) and students without a disability. There was a significant difference in absence percentage change for non-disabled students ( $M=8.427, S D=10.8351$ ) and disabled students $(M=3.972, S D=5.7285 ; t=2.430, p=.017$, two-tailed, equal variances not assumed). The magnitude of the differences in the means (mean difference $=4.4546,95 \% C I: .8036$ to 8.1057 ) was moderate, with an eta squared of .07 , indicating a moderate effect (see Table 37 and Table 38).

Table 37: Student Disability Status Group Statistics for Independent Samples T-test (Tardy \% Change Year 1 Post Intervention)

|  | Student <br> Disability <br> Status | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in <br> tardy \% post <br> Year 1 | Non-disabled | 49 | 8.427 | 10.8351 | 1.5479 |
|  | Disabled | 34 | 3.972 | 5.7285 | .9824 |

Table 38: Student Disability Status Independent Samples T-test Results (Tardy \% Change
Year 1 Post Intervention)

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | $\overline{95 \%}$ <br> Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change | Equal variances assumed |  | 13.193 | . 000 | 2.191 | 81 | . 031 | 4.4546 | 2.0327 | . 4101 | 8.4991 |
| \% post <br> Year 1 | Equal variances not assumed |  |  | 2.430 | 76.423 | . 017 | 4.4546 | 1.8333 | . 8036 | 8.1057 |

There were significant differences found for disabled and non-disabled students in terms of not only their initial change following the attendance intervention (20 school days following intervention) for both absences and tardies, but also in the year following the intervention for both attendance outcomes. This finding suggests that a student's disability status is an important factor in overall attendance outcomes, and does not fully support hypothesis 3 b (below), since students with disabilities showed more improvement in absence percentage than students without disabilities:

Students with disabilities will show less improvement in attendance following the intervention than students without disabilities.

## CHAPTER 5

## DISCUSSION AND CONCLUSIONS

The results of this research study of the outcomes of the Fresh Start program, a Tier 2 attendance intervention program, on student attendance outcomes represent a new approach to data tracking and progress monitoring the impact that similar programs can have on student achievement and family engagement as well as attendance. Although the small sample size limited the extent to which interactions could be probed among data points and measurable student outcomes, the findings suggest that the Tier 2 intervention program is significantly contributing to district-wide attendance improvement efforts by curbing downward trends in student absences and tardies. The study can also inform policy and practice as well as future research in the area of public school student attendance interventions.

## Program Referral Patterns

Research question 1 sought to extract all available demographic information for students and their families in order to provide a rich description of referrals made to the elementary intervention program during the 2010-2011, 2011-2012, and 2012-2013 school years. One significant finding was that in $82 \%$ of referred cases, a parent or guardian attended the initial intervention meeting. This is a remarkable parent attendance rate, especially since many of the families presumably have displayed patterns of disengagement (e.g. not attending meetings requested by the school), thereby prompting the intervention. This indicates that the intervention program is effective in connecting the school with parents, thereby increasing two-way communication and the likelihood
that attendance and other school problems can be collaboratively solved by both parties.
The finding that the highest concentration of referrals was found during 1st grade is likely due to the impact of Massachusetts' compulsory education law which states that children are required to attend school between the ages of 6 and 16. Additionally, Supervisors of Attendance (SOA's) often try to employ early intervention approaches to remediating attendance problems for students, based on the principle that issues like problematic attendance are more readily resolved when the pattern has not become chronic. The high concentration of 1st grade referrals to the intervention program is likely to have a positive impact on short and long-term attendance outcomes for the referred student, and by extension, the school's attendance data.

Figure 23 displays the increasing number of referrals that have been received for the intervention program through the related school years. There were 29 referrals received during the 2010-2011 school year which more than doubled by the 2012-2013 school year. The first Fresh Start meetings were held in January of 2011, which is one reason there were less referrals during the initial year of implementation. However, there is still a steady increase in the frequency of referrals. This finding is potentially an indication that the intervention program is viewed by SOA's and school administrators as a useful and effective tool for intervening with families to curb problematic student attendance. Additionally, the high percentage of parents who attend the initial intervention meeting indicates that the program is also gaining credibility with families of students.

The finding that low-income students are referred to the intervention program $14.8 \%$ more frequently (see Figure 25) than would be expected given the district average
is an indicator that problematic attendance patterns are often a function of the combined risk factors (e.g. health, housing, safety problems, etc.) experienced by families related to the impact of poverty. Families that are living in poverty are more likely to benefit from the support provided in a program like Fresh Start, including the supplemental services that can be provided by community agencies. This finding might suggest a link between poverty (low-income status) and problematic student attendance patterns, and that lowincome families can benefit from the AIP.

Figure 24 shows that the attendance percentage (based on frequency of absences only) for students referred to the intervention program is $4.1 \%$ lower than the district average (districtwide tardy percentage data was not available). This is a substantial difference in terms of student attendance data. The attendance patterns displayed by referred students significantly pulls down the average attendance in their school as well in the entire school district. If an intervention is not prompted by the school, low attendance percentages are likely continue and become more pronounced over time, which speaks to the crucial importance of schools allocating resources to collaboratively solve attendance problems with the parents of elementary school students.

Table 9 shows that the percentage of students referred to the program whose first language is not English (31.1\%) is $13.3 \%$ lower than the Wingate district average (44.4\%). While attendance data was not available for this subgroup of students (whose parents may not speak English), related school district staff may want to probe further to determine if this subgroup is being under-referred to the intervention program. Ensuring that interpreters are readily available to attend meetings is an important consideration in
order to promote regular two-way communication between school and home. This is especially important because it is likely that parents who have limited English speaking skills are often less likely to be in regular contact with the school generally (Cheatham \& Ro, 2011; Ladky \& Peterson, 2008; Waterman, 2007). It would be important to determine if the Tier 2 intervention could be expanded in terms of referrals of students whose first language is not English, especially given that at least one member of the team (family advocate) is bilingual (English and Spanish) and may be able to make a positive connection with parents who primarily speak Spanish.

Figure 27 displays referral trends related to student race and ethnicity, and shows that Hispanic students and families represent $50.3 \%$ of all referrals made to the intervention program. This is consistent with district-wide trends related to race/ethnicity, in that Hispanic students made up $38 \%$ of the student's enrolled across Wingate. The finding of the high rate of referral to the intervention program of Hispanic students may prompt SOA's and the Truancy Prevention Specialist (TPS) to determine through research if there are attendance interventions that are particularly effective for Hispanic students and families, as well as to determine if there are any cultural factors impacting regular school attendance for Hispanic students. One possible explanation for the prevalence of Hispanic students/families referred to the AIP could be that the community agency representative is also Hispanic, and schools may view this outreach worker as a potential positive connection for parents/guardians to make due to similar backgrounds in culture and language.

Students with disabilities, defined as students who either are categorized as Special Education or who have a 504 regular education accommodation plan, are referred
to the intervention program at a high rate $(40.6 \%)$ when compared to district-wide averages. Additionally, $68.75 \%$ of SPED students referred to the intervention program were found to have either moderate or high SPED needs (see Figure 30). One possible explanation for the high prevalence of students with disabilities who also present with problematic attendance patterns in Wingate is that students with disabilities (emotional, intellectual, medical, etc.) often have more out-of-school appointments than students without disabilities. These include doctor, counselor, psychiatry, and therapy (physical, occupational, speech) appointments. Additionally, in Wingate, students with disabilities are sometimes bussed to schools that may not be close to where they live so that they can attend specialized classrooms (e.g. social/emotional, autism, learning disability classrooms). If the student misses the bus, parents/guardians often do not have a car to transport them to school, and the student will be absent for the day. In my experience working in schools in Wingate, this is a common occurrence. Also in my experience, students with disabilities struggle to follow routines in general, including a routine in the morning while getting ready for school. Parents/guardians often describe difficulty getting their child with a disability "moving" in the morning, and this can contribute to both increased tardies and absences.

Among SPED students, it is very likely that there are multiple risk factors present that negatively impact school performance for these students, including attendance. Additionally, $15.6 \%$ of SPED students referred to the intervention program are placed in a substantially-separate classroom setting due to a severe social or emotional disability, that often manifests itself in school through negative behavioral patterns. Students placed in this type of classroom setting have often displayed sustained and significant behavioral
difficulty in the regular education classroom setting, prompting a referral to a therapeutic classroom setting. In my work with parents/guardians of students who fit this profile, they almost always report that similar behaviors occur in the home setting as occur in school. This coupled with the school refusal behaviors that often manifest in elementary students with disabilities, especially with severe emotional disabilities, serves as a recipe for attendance problems. Further research could be conducted to determine root causes of chronic attendance problems that are particularly prevalent for students with disabilities, as well as related risk factors, in order to fine tune the activities of the intervention program more specifically to address these unique needs. The attendance intervention program and the collaborative problem solving meeting that occurs is an opportunity to mitigate the negative impact of risk factors on attendance outcomes for students with disabilities.

Student mobility was examined in response to research question 1, and it was found that $11.4 \%$ ( 14 students) of students who were referred to the intervention program were attending school in a different school district as of April, 2014 (see Table 14). This outcome was not significant in terms of data analysis for this study because students were not included in later analysis (for research questions 2 and 3) if they were not enrolled in the same school district in the year following the intervention (post Year 1 data year). However, the finding may suggest that there is relatively high mobility among students referred to the intervention program.

In terms of student achievement on standardized testing, a significant percentage of students referred to the intervention program were found to be ranked as "low" in reading $(26.8 \%$, with data excluded for $23.6 \%$ of students who were not tested, see Table
$15)$ and math ( $33.3 \%$, with data excluded for $22.8 \%$ of students who were not tested, see Table 16) according to MAP testing conducted in June, 2014. This indicates that a substantial portion of students referred to the intervention program are struggling in terms of academic achievement. Additionally, student growth percentiles (SGP's) for students referred to the intervention program were 48.84 in English Language Arts (ELA) and 45.67 in math according to MCAS testing results (see Table 17), which is consistent with MAP testing results. Wingate Public Schools is currently (as of October, 2014) designated a Level 4 district, with standardized testing results in some schools being among the lowest in the state. Students who struggle to make academic progress are more likely to display problematic patterns in their attendance (Dube \& Orpinas, 2009; Heyne, King, Tonge, \& Cooper, 2001; Kearney \& Silverman, 1993; McShane, Walter, \& Rey, 2001), including engaging in school refusal behaviors which contribute significantly to tardies and absences. It is possible that the intervention program includes discussion in the context of the intervention meeting about student academic performance, and this is an important activity since decreased academic performance represents a significant root cause to chronic attendance problems.

The student and family demographic patterns of those referred to the intervention program can help to inform future referral patterns in order to ensure that referral patterns represent equitable access of the AIP for all demographic student and family subgroups. These results can also help to inform choices made within the context of collaborative problem solving meetings to address the underlying issues and root causes that contribute to chronic attendance problems. Discrepancies between district averages and referral patterns in terms of student disability, ethnicity, and family income status are possibly
due to the higher level of need in the impacted subgroups.

## CPS Meeting Impact on Attendance Outcomes

In this study, I attempted to determine the impact, if any, of the attendance intervention program on student attendance outcomes. The exclusion criteria that were applied to the cases were intended to isolate the data for students who showed improvements in either absences or tardies compared to baseline in the 20 school days following the intervention, and for whom there was complete post (Year 1) absence and tardy data by which to run correlational data to the initial change. Additionally, cases in which the parent did not attend the intervention meeting were eliminated in order to control for attendance improvements that were not related to the impact of the intervention meeting itself. Despite the omission of these cases in which the parent did not attend, it is still possible that the intervention program could have had a positive impact on student attendance, in that every family was sent an invitation letter (see Appendix A) which alone may have a positive impact on student attendance. However, this effect was not tested within the scope of the research study.

Baseline data, which was based on the 30 school days prior to the intervention, and post-intervention data, which was based on the 20 school days following the intervention, were intervals decided upon by the researcher. The intent of these intervals was to isolate the day of the intervention in order to increase the probability that an improvement in attendance following the intervention was due to the intervention itself. The post-intervention data interval may not be sufficient in determining the actual impact of the intervention program on student attendance, in that some student's may have shown a delayed improvement in attendance that was sustained above baseline despite not showing improvement in the 20 school days following the intervention. Future
research may employ different intervals of time to determine the long-term impact of the intervention on student attendance patterns.

The finding that the majority of cases (67\%) showed improvement in either absence or tardy percentage following the intervention is significant. Although a detailed analysis of prior attendance patterns was not conducted in this study, it is very likely that most cases referred included students with declining attendance patterns. For this reason it is notable that such a high percentage of cases showed improvement following the intervention. The initial improvement in attendance when compared to baseline is a sign that maladaptive patterns have been broken at least temporarily and that parents and students are experiencing increased feelings of self-efficacy to address the ongoing concern.

The core focus of the Fresh Start AIP is to identify the root cause(s) of ongoing attendance problems through collaborative problem solving with the parent/guardian, developing a highly-individualized plan to mitigate the negative impact of these root causes (through community and/or school supports), and monitoring attendance outcomes. The Fresh Start AIP is designed to be responsive to individual family needs, and successfully avoids a "one size fits all" approach to intervention development. For this reason, there are necessary variations between each Fresh Start meeting depending on the needs of each family. This individually-tailored appraoch is likely to be the most significant contributor to the success of this program in improving attendance outcomes for the majority of families referred for the intervention. While it is likely that continued intervention and support will be necessary from SOA's and other related school staff, the initial improvement provides a solid foundation on which future attendance patterns can
be built.

In terms of outcomes related to absences, a significant finding in this study was that there was a strong correlation between the absence percentage improvement in the 20 days following the intervention and the following school year (180 days). This finding might be indicative of the positive and lasting impact that the Fresh Start intervention has on the following school year's absence percentage when compared to baseline data for some students. This further supports the finding that the intervention program is successfully disrupting negative patterns related to student absences, and is a strong indicator that the program is achieving its desired short and long-term attendance outcomes according to its logic model (see Appendix A).

Using the analogy that the intervention (Fresh Start meeting) is a "dose of medicine," one dose, which is usually a meeting lasting approximately thirty minutes, has a lasting positive impact. While the data were not available for Year 2 following the intervention for all students, it will be available following the completion of the 20142015 school year, and analyses can be conducted to determine if there is a correlation between the initial response and the Year 2 absence percentage improvement over baseline. It is possible that these data could indicate that many students may show an increase in absence and tardy percentage from Year 1 to Year 2.

Similar findings were discovered in terms of improvement in tardy percentages as were found with absence percentages, indicating that the initial trends in the change in tardy percentage immediately following the intervention are positively correlated with the sustained improvement over baseline in the subsequent school year after the intervention. Improvement in tardy percentage is indicative of changes in routine, especially morning
routines, made by the student's parent(s) in order to ensure that they arrive to school on time. Student tardies are not monitored by school districts as closely as student absences, but tardies have a significant detrimental impact for not only the student who is late, but also for his or her classmates. Other students in the classroom often receive delayed instruction due to the teacher having to review the daily schedule again for the benefit of the student who is tardy. For these reasons, remediating chronic student tardiness is very important, even if the student's attendance is not otherwise problematic (e.g. high attendance percentage).

Of all students who showed improvement in either absences or tardies following the intervention, $44.58 \%$, or 27 students (see Figure 36), were referred due to problems both with excessive absences and tardies. Students who present with this combined type of absence problem represent students who are most at-risk for long-term chronic attendance problems, and for whom school intervention is most crucial to break negative patterns in both domains. Table 22 displays the average change in absence and tardy percentage in the 20 school days following the intervention and in the school year following the intervention by referral category. For students who were referred due to absences and tardies, substantial improvement was made in the 20 days following the intervention over baseline for absence percentage (4.282\%) and tardy percentage $(6.901 \%)$, and during the school year following the intervention for absence percentage $(3.209 \%)$ and tardy percentage $(6.004 \%)$. It is notable that this referral group, for which there are likely more risk factors present impeding regular school attendance, made a significant improvement when averaged for both absences and tardies, and that this improvement was sustained into the next school year. This finding might suggest that
adjustments made by school staff and the student's parent(s)/guardian(s) are likely to increase both attendance and tardy percentages. The intervention program and the activities associated with the collaborative problem solving meeting itself seem to be having a significant impact on the referred students who display both chronic absences and tardies, who have most negatively impacted school-wide attendance rates in both areas in the past.

Finally, results of this study support that it is important for problematic attendance patterns to be addressed by the school early (during the primary grades of Preschool through 2nd grade). Table 23 and Table 24 display that primary students were significantly better able to sustain improvement in absence percentage ( $4.221 \%$ on the average) in the school year following the intervention when compared to intermediate students (Grades $3-6, .794 \%$ on the average). This finding indicates that although intermediate students increased their absence percentage $3.367 \%$ in the 20 days following the intervention, this improvement decreased by approximately $2.5 \%$ in the following school year. In other words, intermediate students reverted back to long-standing habits in the school year following the intervention, and primary students were able to sustain improvement in absence percentage because the attendance problem had not yet become chronic. This result may indicate that the Fresh Start intervention may be best-suited to intervene with primary students and families as a Tier 2 intervention, and Tier 3 interventions, often involving Juvenile Probation Officers and social workers from child protective services, could be utilized for intermediate students displaying longer standing patterns of truancy.

## Interactions Between Variables and Attendance Outcomes

In order to create groups that were large enough to be used to determine correlation, data were recoded for student LEP, first language, place of birth, and ethnicity as was explained in Chapter 4. While the recoding resulted in less categorical specificity, it allowed for an initial inquiry to be conducted into potential interactions between variables as they relate to attendance outcomes following the intervention.

There was no significant correlation found for the vast majority of data points (LEP, low-income, first language) according to independent samples $t$-tests generated in response to research question 3. Both the relatively small sample size and the condensing of detailed data points into two variables may have contributed to this finding. One notable exception to this finding occurred in relation to the impact of the student's gender on outcomes for absences. There was found to be a significant difference in absence percentage change in the 20 days following the intervention for males than for females (see Table 26). Specifically, male students showed an average increase of $6.854 \%$ following the intervention and female students had an average increase of $1.633 \%$. It is unclear why this discrepancy occurred between student genders in regards to initial absence percentage change, and the difference was not statistically significant when compared to the percentage change in the school year following the intervention (see Table 30). Currently, there is no available research that explores the impact of student gender on attendance patterns. Further research could be conducted to determine the cause of this difference for absences specifically, especially since the difference did not persist into the next school year and there were no significant differences between male and female students in terms of tardy percentage change.

Another important finding was that there was a significant difference between students with disabilities (students with either Special Education services or a 504 accommodation plan) and students without disabilities in terms of the change in both absence and tardy percentages in the 20 days following the intervention. Related to absences, students with disabilities improved significantly more $(M=6.748 \%)$ than students without disabilities ( $M=2.239 \%$ ) (see Table 31). Related to tardies, conversely, students without disabilities improved significantly more ( $M=9.895 \%$ ) than students with disabilities $(M=4.590 \%)$ (see Table 33). This trend continued for both absence and tardy percentage in the year following the intervention for both groups (see

Table 35 and Table 37). It is unclear if this outcome was the result of a spurious relationship, since it would be expected that a group that shows elevated improvement with one data indicator (e.g. absences) would also show elevated improvement in the other related data indicator (e.g. tardies). However, the academic performance of students with disabilities is negatively impacted by negative attendance patterns to a greater degree than students without disabilities. For this reason, any improvement in attendance patterns for students with disabilities is especially crucial to bolster their academic success. In future research, interviews with parents/guardians of students with disabilities and members of the AIP team could explore the potential reasons for the discrepancy between students with and without disabilities in terms of attendance outcomes following the intervention.

The results for research question 3 also included a preliminary inquiry into the possible relationship between academic achievement outcomes and absence and tardy percentage change following the intervention. A detailed correlational analysis of pre and post-intervention standardized testing results to determine if there is a relationship between academic achievement and attendance was not within the scope of this study, and access to insufficient student testing results precluded this level of analysis.

However, the results for this research question could help to inform future research about the links between attendance and achievement. As was described in Chapter 3, student growth percentiles (SGP's) represent an individualized means to monitor student progress in relation to their academic peers. SGP's in MCAS and other standardized testing represent the future of monitoring student progress in which they are measured compared to a standard that is individualized and based on actual student performance, as opposed
to an arbitrary standard. The philosophical underpinnings of SGP's should also be applied to monitoring attendance progress, in that student's progress related to attendance should be assessed by relative changes in their attendance outcomes based on that student's prior attendance patterns. When both approaches are combined (academic and attendance), it will be possible to draw a stronger link between student attendance and academic progress.

Finally, bivariate correlational analyses were conducted for student absence and tardy percentage changes in the 20 days following the intervention and MAP reading and math test scores from June, 2014 (see Appendix P). These analyses were conducted after scatterplots (see Appendix O) indicated clustered data points for both variables. There were no significant correlations detected between absence or tardy percentage change and MAP reading or math scores according to the reports generated. It is possible that establishing baseline MAP reading and math scores, much in the same way as was done with pre-absence and tardy percentages, prior to the intervention to compare to postintervention scores could provide valid correlational data for the students who received the intervention, and potentially draw a link between improved attendance patterns and student academic performance.

## Implications for Policy and Practice

This research study represents an initial reframing of public elementary school attendance interventions in a tiered model of delivery. Additionally, the establishment of individualized baseline data for each student by which post-intervention outcomes are measured emphasizes the importance of recognizing students and their parents/guardians for making relative improvements and breaking problematic attendance patterns and
habits. Recognizing and capitalizing on relative improvements made by students and families in absence and tardy percentages has the potential to bolster family engagement and student achievement outcomes in tandem. In addition to these implications for attendance intervention practices in public schools, this study has other potential implications for related policies and practices.

## Implications for Policy

It is important that state and local attendance policies related to compulsory student attendance recognize the highly individualized nature of progress monitoring in terms of attendance outcomes. In my professional experience as a Supervisor of Attendance (SOA), I have worked with principals that use the average school attendance rate as the standard for categorizing students as being at-risk in terms of attendance patterns. While school-wide attendance patterns provide one data point by which to conceptualize student attendance patterns, for the purposes of monitoring progress following a school-based attendance intervention, it is crucial that relative gains made by each student and their progress over time are tracked regularly. If families are simply held to a standard that is not immediately attainable, such as an average school-wide attendance percentage, it is not likely that parents/guardians of elementary school students will make the short-term changes to break longstanding problematic attendance patterns. It is important for students and their parents/guardians to experience short-term successes in terms of attendance in order to sustain the improvement and build upon it. State-level compulsory attendance laws in Massachusetts have recently begun to include language about school-based interventions that are necessary in order to address problematic student attendance patterns prior to filing Adult Failure to Causes (ADF)
with the Juvenile Court system or 51A alleged abuse/neglect reports with the Department of Children and Families (DCF) against parents/guardians. This shift in language and required practices is based on the assumption that negative attendance patterns are often a symptom of much deeper risk factors impacting students and families, including the impacts of poverty, physical and mental health issues in students and their parents, and student learning difficulty and decreased achievement. These densely-layered risk factors require a team approach (e.g. Wraparound) in order to shore up student families in these domains, consequently improving student attendance patterns. Related state laws in Massachusetts still do not adequately delineate the root causes of ongoing student attendance problems. It is important for state policies to outline these root causes to provide a framework for local school districts to develop tiered attendance interventions that adequately address underlying issues.

The provision made in local district attendance policies for school principals to exercise discretion in filing against families/students with Juvenile Court and/or DCF causes there to be widely varying rates of Tier 3 referrals among schools within the Wingate Public Schools. Filing these reports against families often serve to strain the relationship between the school and the student's family. The Massachusetts Juvenile Court and DCF are often unable to provide the intensive case management and planning necessary to ameliorate the issues underlying student attendance problems at the elementary school level. Community agencies, such as case management and in-home behavioral support through the Children's Behavioral Health Initiative (CBHI), are often tapped by the Court and DCF to intervene when ADF's and 51A's are filed by the child's school. These referrals can also be made by school-based mental health and social
workers prior to and in lieu of filing against the family with a state-run agency. While the language of the Massachusetts law related to this is shifting towards this requirement, it will be necessary for loopholes to be closed in which schools could bypass interventions and file with a state-agency. Additionally, it will be important for strong partnerships to be developed between local, especially urban and high-risk school districts, the Juvenile Court, DCF, and community partners (e.g. mental health, fuel assistance, homelessness prevention agencies) in order to develop policies and procedures that adequately address the underlying causes of problematic elementary school attendance, thereby decreasing the frequency of filing against students and families with state agencies.

The link between school-based student attendance interventions and family engagement efforts has not been adequately made through policy at the local level (in the Wingate Public Schools) or at the state level. The opportunity to embed family engagement efforts within regularly-occurring school processes (e.g. attendance, Special Education, Response to Intervention, and other parent meetings) is often missed by school districts. Conversely, family engagement is often framed as an add-on or ancillary activity that occurs in isolation from other school practices. State and local policy related to elementary student attendance can embed family engagement language within it to promote the concept that family engagement efforts are more likely to be successful when they occur in tandem with existing school-based processes.

## Implications for Practice

A three-tiered system of supports and intervention similar to both the Massachusetts Tiered System of Supports (MTSS) and Response to Intervention (RTI) can provide a useful framework for organizing attendance interventions at the district and
school-level. The systematic and data-driven nature of tiered systems of support align with attendance interventions conducted with students and their parents. Once attendance interventions are conceptualized in a tiered model, approaches can and should be individualized based on the specific needs of the student and their family with an emphasis on the underlying root causes of the ongoing attendance problem. A strengthening of existing Tier 2 attendance interventions and the addition of new research-based approaches can serve to bolster attendance outcomes for individual students, within their school, and district-wide. Strong Tier 2 attendance interventions will serve to decrease the frequency of Court and DCF filings against the elementary student's parent(s), and will address school attendance issues in a more efficient and family-centered manner, without the involvement of state agencies that can be intimidating to families.

In my experience as a Supervisor of Attendance, I have witnessed a lack of streamlined methods for tracking individual and schoolwide attendance in an efficient way that is not labor-intensive. SOA's have been required to develop their own widelyvarying methods for tracking student attendance, and the necessary data (e.g. absence/tardy data for certain intervals of time) is not readily available to the staff supervising attendance. School districts should develop the technological infrastructure for SOA's to be able to access student attendance data, especially for specific intervals of time (e.g. prior to to an intervention compared to a certain number of school days following the intervention) in order to provide timely and regular feedback to families about their progress following an intervention. This bolstering of progress monitoring procedures and related technology would facilitate the implementation of a tiered system
of attendance interventions and supports, and would allow for SOA's and principals to make informed and student/family-centered decisions based on up-to-date attendance data.

Professional development (PD) is crucial for district and school-level administration, SOA's, teachers, and other school staff to ensure that a consistent approach towards improving student attendance is employed by all necessary stakeholders. It is important that a consistent message is given to students and families by all school staff, and that this message is delivered in an emphathic and non-judgmental manner. Effectively engaging families requires some finesse and situational awareness on the part of all involved school staff.

The late Maya Angelou once said, "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel." This underlying message of this quotation is relevant to the discussion about family engagement and student attendance interventions with families. In my experience, parents are most receptive to suggestions and feedback related to attendance and academic outcomes when they do not sense they are being judged or labeled by school staff and when humor is used as a tool to put the problem into perspective. The Fresh Start AIP is an opportunity for parents/guardians to have access to a team of both school and community-based professionals that can work with them to solve their child's attendance problem collaboratively. In my observations of Fresh Start meetings, I heard team members providing judgment-free descriptions of potential root causes of the ongoing attendance problem, and providing families with potential solutions to the causes. This is a core component of the Fresh Start program and it is likely a significant contributor to its
expanding number of referrals and significant positive impact on short and longer term attendance outcomes for students whose families have received the intervention. Fresh Start is designed to be a program that provides a new beginning for students and their families to realize improved attendance patterns.

Fresh Start is an intervention that is not currently implemented in all the elementary schools within the WPS. Expansion of the AIP to more elementary schools in the district could potentially bolster the attendance interventions that are already employed within those schools, and lead to sustained attendance improvement in referred students. The Fresh Start team consists of two members who are not embedded in the child's school (Truancy Prevention Specialist and family work from a community agency), but the rest of the team consists of school-based faculy, staff, and administration. This is an efficient model that does not rely on a large number of people outside of the school to attend. The expansion of the Fresh Start AIP into additional elementary schools in Wingate could be done without significant staffing changes since the constellation of the teams is largely made up of school-based faculty and staff.

Providing PD to teachers and other school staff related to practical strategies for promoting student attendance in tandem with family engagement within parent conferences, for example, can help to bolster the fidelity with which interventions are implemented, thereby bolstering student outcomes. While it is important to keep in mind what is being said (the message) to parents, it is equally important to be cognizant of how it is being said, and that the message is delivered in a way that facilitates it being received and understood by the parent(s). Professional development can be designed to promote communication skills in all school staff when interacting with student families.

Finally, partnerships between local school districts and community agencies are an important and effective means for providing support to families in need. The intervention program examined in this study includes a representative from a local agency that helps to support the financial stability of families. While the supports provided by the community agency representative were not delineated in this research study, it is important for school districts to explore community partnerships in which both parties, the school and the agency, can potentially achieve mutually-beneficial outcomes. Community partnerships can help schools to bolster student achievement and attendance outcomes, and this can often be done without any additional financial burden by the school district. Given the shift in Massachusetts state law that calls for school districts to increase their capacity for providing interventions that address problematic student attendance, and the multi-layered root causes driving the pattern, community partnerships will become increasingly relevant to school districts to address attendance problems with students. For the Fresh Start AIP specifically, it may help to bolster the relevance and depth of the interventions to include more community agency reprentation on the Fresh Start team. These community partnerships could help to provide support and guidance to families on other issues that may be impacting their child's attendance, including housing (Wingate Housing Authority), food (local food pantries), and adequate healthcare (health insurance enrollment specialists). The expansion of community partnerships on the Fresh Start team could help to more promptly address the underlying risk factors that contribute to chronic attendance problems.

## Implications for Future Research

This research study represents a novel approach towards tracking student
attendance outcomes as applied to a Tier 2 attendance intervention program in Wingate Public Schools, an urban school district in Massachusetts. The individualized outcome data and proposed framework for monitoring attendance outcomes provide a potentially useful approach for school districts to track the impact of attendance interventions on student outcomes. Too often, individual attendance outcomes are held up to the average attendance patterns in the student's school and the entire school district. This approach does not involve individual goal-setting or provide students and their parents/guardians a starting point on which to begin to change problematic attendance patterns. The use of individual baseline and outcomes data related to attendance patterns will become increasingly important to implement in order to close the gap that exists between the attendance percentage of students with problematic attendance patterns and the average school percentage. There are many potential implications for future research in student attendance interventions as well as family engagement practice for public schools in the United States.

## A New Approach: Individual Student Baseline Data

As is explained in the literature review, although research related to student attendance interventions at the elementary school level is increasing, there is little research to guide school-level attendance monitoring and intervention. The establishment and monitoring of individualized baseline and outcomes data for each student, as was performed in this research study, is an approach that is currently not present in scholarly literature related to problematic student attendance. It is crucial that Supervisors of Attendance (SOA's) work with parents/guardians to make incremental improvements in their child's attendance as opposed to expecting perfection immediately following the
intervention. The pressure on school principals to improve their school wide attendance percentage is increasing, and in my experience, this can lead to principals becoming frustrated with parents of students with chronic attendance problems. This frustration can lead to the filing of ADF's and 51A reports (in Massachusetts) against the parent/guardian alleging educational neglect in lieu of Tier 2 interventions, like Fresh Start, that intervene with student attendance and promote steady improvements in attendance. Schools often strain the relationship between the school and family (decreasing family engagement) by utilizing this Tier 3 intervention, and in my experience, the Court/DCF intervention often does not effectively address the underlying root cause(s) of attendance problems as effectively as a school-based intervention program.

The use of individualized baseline and outcomes data when monitoring student attendance is a reasonable approach for working with families to make incremental, albeit small, positive changes in longstanding negative attendance patterns. The hope of this approach is not only that there will be initial improvements in attendance and/or tardy percentages following the intervention, but additionally, that there will be follow-up goalsetting with families to steadily increase their child's attendance outcomes until they reflect percentages more in line with school wide patterns. While an initial percentage improvement in attendance is undoubtedly positive and commendable on the part of the parents/guardians of elementary school students, these percentages often indicate that the student's absences/tardies are still excessive, so it is important to adopt a continual improvement mindset in terms of student attendance outcomes.

The model of continual improvement can and should be applied to the monitoring
of post-intervention student attendance patterns, and these outcomes should be put in the context of school wide attendance patterns and the school district's delineation for problematic attendance (excessive absences and/or tardies). To put it simply, the message to parents/guardians would be something like this: "You've done great so far, but you also have a long way to go." The school-based AIP becomes the vehicle for continual improvement of student attendance, and individual student/family goal-setting (which defines when the intervention is successful) via the collaborative problem-solving process can bolster short and long-term student attendance outcomes.

## Attendance Outcomes

Future research related to the specific changes made by the families of students (e.g. changes in daily routines, collaboration with community agencies, increasing the responsibilities/tasks performed by the student, etc.) could help to identify the changes that were most crucial to making improvements for students who increased their attendance and/or tardy percentage following the intervention. It is likely that the establishment of solid daily routines in the child's home would help to lay the foundation for future changes that would improve attendance outcomes. Through future research, it may be possible to examine the nature of recommendations for change that are presented by the SOA and the collaborative problem solving team, and the supports that families will need for these changes to be successful, to bolster student attendance outcomes. Logic would dictate that parents will feel more confident about making future changes if they experience success with initial changes, so it is important that the CPS attendance team manage their expectations of parents and make reasonable requests of them based on their current areas of strength and need.

Additionally, research about what actually occurs in terms of interactions and meeting structure (activities) on the AIP meetings would be interesting and crucial for the successful replication of the AIP. The collaborative problem solving focus of the AIP is especially important to explore. It is clear that many aspects of the Fresh Start program are working, and it will be important to identify what aspects of the intervention seem to have the most positive impact on attendance outcomes for students whose families have received the intervention.

Additional research examining the post-intervention attendance outcomes for students, especially related to determining the crucial period following the intervention in which short-term positive change could predict long-term positive change in attendance, could yield useful results for school districts. For the purposes of this study, twenty school days following the intervention was used to determine whether or not the intervention was successful by comparing baseline data (average of 30 school days prior to intervention for absences and tardies) to post-intervention data. Future research could involve the manipulation of the pre and post intervals to determine crucial periods before and after the intervention that may predict the way in which the student and family respond to the intervention.

## Intervening Variables

This study did not examine the potential impact of weather patterns on student attendance. From my experience working in schools in Massachusetts, I have found that the widely varying New England weather has a significant impact on student attendance patterns, especially during the winter when snow and ice are factors. Future research may examine the impact of inclement weather on student attendance outcomes by cross-
referencing daily student attendance with high and low temperatures, weather indicators (e.g. snow, rain), and weather advisories. This research could provide more insight into the impact of weather as another root cause of problematic student attendance patterns.

Further research regarding of the role of family mobility issues on student attendance outcomes could provide more insight into another root cause of chronic attendance issues. Many families do not own a car or have access to a friend or family member who can help them transport their child(ren) to school. School district policies related to access to a school bus are relevant to this issue. For example, school districts often do not provide a student access to a school bus if they live within a certain distance to the school (e.g. 2 miles). For families that do not have a car, these policies often force parents to walk with their children to school. This added responsibility on parents is likely to have a negative impact on student attendance outcomes, and is worthy of further research.

Identifying and exploring the multiple root causes of elementary school attendance problems (e.g. attachment disorder, parent/guardian anxiety, mental illness, etc.) is another direction in which future research on this topic could take. More research is needed about the nature and impact of these root causes in order for schools to more effectively address the underlying issues via attendance intervention programs. Interventions should be developed based on the root causes that help to perpetuate the cycle, so effectively identifying common root causes is crucial for any attendance intervention program's effectiveness.

## Student Academic Achievement

Although student academic achievement was not examined as part of this research
study, preliminary statistical analysis was conducted to determine if there was any correlation between post-intervention attendance outcomes (for absences and tardies) and standardized testing results (MCAS growth percentiles and Measures of Academic Performance standardized testing results). Appendices $\mathrm{N}-\mathrm{R}$ include scatterplots and correlational tables that include these data points, and no significant results were noted. It is highly likely given the body of research showing a strong positive correlation between student attendance and academic achievement that students who respond positively to the Fresh Start intervention will eventually display higher standardized test scores. However, it is also very likely that it will take a certain amount of time for improved student attendance to yield measurable increases in student standardized testing results.

For these reasons, research aimed at linking attendance intervention outcomes and academic achievement and performance should expect that the impact is gradual and cumulative in terms of standardized test scores. A future longitudinal study, for example, that follows a cohort of students whose families were involved in the intervention and whose child(ren) showed improved attendance afterwards could compare academic achievement patterns for these students as they progress through school. These outcomes could include standardized testing and graduation rates, as well as alternative academic progress data indicators, including observational data, indicators of student engagement in learning, and student's integration into the school community. This study could also determine if the attendance intervention program has any impact on short and long-term academic achievement outcomes for students.

## Professional Practice

Future research related to the professional practices associated with tiered
attendance interventions could involve direct observations of the collaborative problemsolving (CPS) meeting itself in order to identify themes that occur between and within meetings. These observations could also help to develop a deeper understanding of the processes involved in these meetings, as well as the role each team member plays. Additionally, these observations could be used to examine the commonly reported obstacles by parents to having their child attend school regularly and on-time. The data gathered from the observations could be used to inform the way in which other intervention programs are designed in other schools and school districts.

For this research study, interventions that may have been implemented in tandem with the Tier 2 intervention program were not included in the analysis. It is likely that the school adjustment counselor and other school staff were providing support to the student and their family along with the support provided by the intervention program. Future research could examine the interaction between the intervention program and other school-based interventions in order to determine the way in which they contribute to improving student attendance outcomes. The Wraparound model would indicate that the more high-quality interventions and supports that are available to a student and family, the higher the likelihood that the root cause(s) for chronic attendance problems will be addressed, thereby improving attendance outcomes.

Future research could also be conducted regarding the impact of the longevity of the chronic attendance problem on intervention outcomes. This study did not include an analysis of the impact that the amount of time a student has had problematic attendance has on intervention success, but it is very likely that the length of the problem is negatively correlated with attendance outcomes. It is also likely that longer standing
patterns of negative attendance will require more intensive intervention by the schoolbased intervention team. This research could potentially yield guidelines that could shape the nature of the intervention depending on the student's attendance history. While it would still be important to tailor the intervention to the student and family's specific areas of strength and need, a similar study could help SOA's to determine the amount of resources they will allocate to specific students and families.

Exploration of the role of community agency partners on student attendance outcomes is another potential area of future research. The attendance intervention program in this study includes an employee of a community agency on its collaborative problem solving team, but the interventions performed by that team member were not analyzed or identified in this study. A future study could identify the interventions conducted by the community agency employee to determine the potential impact that these interventions have on student attendance outcomes.

## Conclusion

This research study focused on the Fresh Start Tier 2 attendance intervention program (AIP) in the Wingate Public Schools, including demographic referral patterns, the impact that the AIP had on absences and tardies, and the impact the AIP had on attendance for certain demographic subgroups. The study found that the Fresh Start AIP is expanding yearly in terms of referrals, and schools are more frequently utilizing the intervention to address problematic attendance patterns collaboratively with parents/guardians of students. Through quantitative analysis, the study found that the AIP had a positive impact on short-term attendance outcomes following the intervention for the majority of families ( $67 \%$ of referred families). Through correlational analyses, the
study found that there was a strong positive and highly significant correlation between improvements in attendance (for both absences and tardies) immediately following the intervention when compared to attendance and tardy percentages for the following school year. These outcomes were measured by establishing individualized baseline data for each student referred, which was based on the patterns in the 30 school days before the intervention. This allowed for the percentage change in attendance and absence percentage to be compared between cases, and to highlight the actual impact of the AIP on attendance outcomes immediately following the Fresh Start meeting.

While there was no significant correlation found between post-intervention attendance outcomes and most demographic subgroups (student limited English proficiency status, student's first language, student's place of birth, student's ethnicity), a significant positive correlation was found between student disability status and both absence and tardy percentage change following intervention. Students with disabilities were found to have more significantly improved attendance outcomes following the intervention than students without disabilities. This result indicates that the Fresh Start program has a positive impact on students who present with risk factors related to disability that can have a detrimental impact on attendance outcomes.

Due to the small sample size and a lack of sufficient academic achievement data for all students, a link was not able to be established between changes in academic achievement and changes in attendance patterns following the Fresh Start meeting. It is likely that the upward trend in attendance and tardy percentage following the Fresh Start meeting will be positively correlated with academic achievement outcomes. Future research could analyze the longitudinal attendance and academic achievement outcomes
for students whose families received the intervention to compare their achievement patterns prior to and after the intervention.

School attendance problems are often only the tip of the iceberg in terms of risk factors and challenges being faced by students and their families, and it is crucial that school districts establish similar intervention programs to work to collaboratively solve student attendance problems with parents of elementary school students. The problem of decreased student attendance, impacted by both excessive absences and tardies, is many layered and multi-dimensional. It requires the empathic and strength-based approach of school staff, especially Supervisors of Attendance, to peel back the layers and guide students and families towards improved attendance, and consequently improved academic outcomes.

## APPENDIX A

## LOGIC MODEL

| Inputs | Outputs |  | Outcomes - Impact |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Activities | Participation | Short | Long |
| Problematic student attendance patterns (excessive absences and/or tardies) | Tier 2 intervention meeting | Program/meeting facilitator, community agency representative, student's parent/guardian, school administration, school adjustment counselor, school nurse, classroom teacher, and other school staff | Cessation/improvement of problematic attendance pattern, increased family engagement, increased student academic achievement, less disruption to learning environment | Increased student academic achievement, upward attendance trend |
| Lack of two-way communication between the student's parent/guardian and school staff | Referral to community support agencies | Community agency representation, parent/guardian, student | Increase family access to basic needs, increase selfefficacy of parent/guardian | Minimizing the impact of poverty on student outcomes (both school and career) |
| Decreased student academic achievement | Follow-up with school/family about attendance outcomes | Program/meeting facilitator, school adjustment counselor, school administration, parent/guardian | Identify post-intervention attendance patterns, determine tiered intervention necessary | Determine fidelity of implementation for programmatic improvement |
| Disruption to learning of identified student(s) and other students in child's class due to lack of instructional continuity. | Adjusting design of program and intervention approach based on outcomes data | Program facilitator, relevant district administration, community agency representative and administration | Improved student attendance outcomes | Increased family engagement, increased student academic achievement, upward attendance trend |
| Assumptions |  |  | External Factors |  |
| - When students attend school regularly, they are more likely to be successful |  |  | t/family risk factors (significant attendance/discipline |  |

achievement patterns.

- When school districts intervene early to address problematic attendance patterns in collaboration with parents/guardians, there is a higher likelihood of breaking the pattern of non-attendance.
- English Language Learners (ELL) students typically have greater difficulty accessing the curriculum than students whose native language is English.
- Students experiencing multiple risk factors at the same time are more likely to be exhibiting problematic attendance patterns and decreased academic achievement.
- Negative attendance problems will persist and often worsen over time if the school does not intervene.
- Parents/guardians of students negative experiences with schools as children themselves.


## APPENDIX B

# RTI TEAM MEETING CHECKLIST - INITIAL VERSION 

(RTI Action Network, n.d.)
Directions: For each of the following critical components of Response to Intervention please check whether the component was present or absent during the Problem-Solvi Team Meeting. This form should only be used for initial student problem-solving ses:

| Critical Component | Present | Abse <br> nt | Evid <br> No |
| :---: | :---: | :---: | :---: |
| Per |  |  |  |

## Personnel Present

1. Administrator
2. Classroom teacher
3. Parent
4. Data coach
5. Instructional support (e.g., Title 1)
6. Special education teacher
7. Facilitator

## Problem Identification

8. Replacement behavior(s) was identified.
9. Data were collected to determine the current level of performance for the replacement behavior.
10. Data were obtained for benchmark (i.e., expected) level(s) of performance.
11. Data were collected on the current level of peer performance.
12. A gap analysis between the student's current level of performance and the benchmark and the peers' current level of performance and the benchmark was conducted.

## Problem Analysis

13. Hypotheses were developed across multiple domains (e.g., curriculum, classroom, home/family, child, teacher, peers) or a functional analysis of behavior was completed.
14. Hypotheses were developed to determine if the student was not performing the replacement behavior because of a performance and/or skill deficit.
15. Data were available or identified for collection to verify/nullify hypotheses.
16. At least one hypothesis was verified with data available at the meeting.

## Intervention Development/Support

17. Goals were clearly selected and related directly to benchmarks.
18. Interventions were developed in areas for which data were available and hypotheses were verified.
19. At least some discussion occurred about the use of evidence-based interventions.
20. Criteria for assessing intervention integrity were agreed upon.
21. Frequency, focus, and dates of progress monitoring were agreed upon.
22. Criteria for positive response to intervention were agreed upon.
23. An intervention support plan was developed.
24. Intervention support personnel were designated and meeting dates agreed upon.
25. A follow-up meeting was scheduled.

## APPENDIX C

## PROOF OF RESEARCHER'S CITI CERTIFICATION

## COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI) HUMAN RESEARCH CURRICULUM COMPLETION REPORT Printed on 09/26/2013

|  | Brendan Keenan, Jr. (ID: 1093484) |
| :--- | :--- |
| LEARNER | 13 Knowles Road |
|  | Worcester |
| DEPARTMENT | MA 01602 |
| PHONE | Education |
| EMAIL | $774-239-1304$ |
| INSTITUTION | Btkeenan@educ.umass.edu |
| EXPIRATION DATE | University of Massachusetts Amherst |
|  | $09 / 24 / 2018$ |

GROUP 2 SOCIAL AND BEHAVIORAL RESEARCH INVESTIGATORS AND KEY PERSONNEL

| COURSE/STAGE: Refresher Course/2 <br> PASSED ON: $09 / 25 / 2013$ <br> REFERENCE ID: 11137979 |  |
| :---: | :---: |
|  |  |
|  |  |
| REQUIRED MODULES | DATE COMPLETED |
| SBE Refresher 1 - History and Ethical Principles | 09/25/13 |
| SBE Refresher 1 - Federal Regulations for Protecting Research Subjects | 09/25/13 |
| SBE Refresher 1 - Informed Consent | 09/25/13 |
| SBE Refresher 1 - Research with Prisoners | 09/25/13 |
| SBE Refresher 1 - Research in Educational Settings | 09/25/13 |
| SBE Refresher 1 - Instructions | 09/25/13 |
| SBE Refresher 1 - Defining Research with Human Subjects | 09/25/13 |
| SBE Refresher 1 - Privacy and Confidentiality | 09/25/13 |
| SBE Refresher 1 - Assessing Risk | 09/25/13 |
| SBE Refresher 1 - Research with Children | 09/25/13 |
| SBE Refresher 1 - International Research | 09/25/13 |

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid independent Learner. Falsified information and unauthorized use of the CITI Progam course site is unethical, and may be considered research misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Program Course Coordinator

## APPENDIX D

## PARENT INVITATION LETTER



A Voluntary Attendance Intervention

Date: $\qquad$
To the Parent/Guardian of: $\qquad$ ID: $\qquad$
School: $\qquad$ Grade: $\qquad$ D.O.B.: $\qquad$

Your child has had excessive absences/tardiness this school year. The Principal and Supervisor of Attendance at your child's school have requested assistance from the Fresh Start team to help the family and the school come up with strategies to improve your child's attendance. When a family is referred to $\qquad$ it typically means that the school is considering filing an application for a Child Requiring Assistance or an Adult Failure to Cause Attendance Complaint at Juvenile Court. The school may also be considering filing a report for educational neglect with the Department of Children and Families.
is a partnership between Public Schools and
and Aamily Advocate
from A school department's Truancy Prevention Specialist will facilitate a
meeting with you, school personnel and Brendan Keenan, a Adjustment Counselor
who is studying $\quad$, to discuss your child's attendance issues. Our goal is to
prevent the need for a referral to Juvenile Court. Your involvement in this
process is essential.

## Meeting Information

Date/time of meeting: $\qquad$

Place of meeting: $\qquad$
Please call Truancy Prevention Specialist, at $\longrightarrow$ to confirm
your attendance at this meeting. Thank you.

October 2013

## APPENDIX E

## APPROVAL LETTER FROM SCHOOL DISTRICT



May 21, 2014

Mr. Brendan Keenan, MSW, CAGS
School Adjustment Counselor
Public Schools
MA


Mr. Keenan,
I am pleased to let you know that your recently submitted research application for IMPACTS OF AN URBAN PUBLIC SCHOOL DISTRICT'S TIER 2 ATTENDANCE INTERVENTION ON ELEMENTARY ATTENDANCE OUTCOMES has been reviewed and approved.

Your study will be helping to evaluate outcomes of a district program and will make use of existing data and no human subjects.

You may proceed with carrying out the research activities described in your application. I kindly ask that you please keep informed as you conduct your study as we like to make sure that research-related activities do not disrupt on-going work in the district. Finally, as your gather the data needed for your study, please let me know if there is a need to deviate from the approved data collection procedures.

Best of luck with your work. Please let me know if I can be of further assistance.


Chief Research and Accountability Officer

## APPENDIX F

## DISTRICT ELEMENTARY ATTENDANCE POLICY

## Attendance/Truancy Policy

The Public Schools has adopted an Attendance/Truancy Policy which includes standards of attendance for grades K-12 and is aligned with the accountability requirements of the No Child Left Behind Act and the Massachusetts Department of Elementary and Secondary Education's established attendance criteria of $95 \%$.

## Elementary (K-6)

Inherent in the standards is an understanding that parents and the school need to work together in encouraging pupil attendance on each day that school is in session. Attendance emphasis in the elementary schools recognizes developmental factors of educational growth and responsibility.

Punctuality and regularity of attendance are important to the child from the very first day of school. The earlier a child learns that school is her/his job and that she/he has something important to do, the more satisfactory will be her/his growth and development.

## Elementary

a. A student shall not be repeatedly absent from school without legitimate cause. A student enrolled is expected to be present and punctual each day school is in session. Parents/guardians will report each absence by telephone prior to the absence or by written note within two (2) days.
b. Fourteen (14) absences per year will be considered excessive. Excessive absences may result in retention according to the Promotional Policy of the Public Schools.
c. After five (5) unexcused absences, the principal (or his/her designee) will notify the parent or guardian in writing and, when appropriate, request a meeting with parent(s)/guardian(s) to discuss the student's attendance.
d. Each elementary school will develop and announce to parents/guardians its procedures for improving the attendance of those students who have more than five (5) unexcused absences during the school year. The school procedures may include the following options, as needed: parent/guardian conference(s), Student Support Process meetings, referral to school nurse, referral to Child Study personnel, referral to social service agencies, a petition to the court, withdrawal of privilege to attend a non-district school or program, a mandated behavior modification plan, demerits, and/or detention.
e. When a student accumulates eight (8) or more unexcused absences within an academic quarter (or term), the principal (or his/her designee) may file a Child Requiring Assistance (CRA) truancy application with the Juvenile Court.
f. When a student accumulates seven (7) or more absences within a six month period, the principal through the Supervisor of Attendance may file an Adult Failure to Cause School Attendance complaint against the parent at County Juvenile Court. In conjunction with this, a 51A report of educational neglect may also be filed with the Department of Children and Families (DCF).
The school will exercise judgment in justification for illness, extended hospitalization, or placement out of home during which school attendance is not reasonably expected.

Absences due to religious holy days, a death in the student's immediate family, or up to two (2) days of absence due to foreign travel related to student experiences having a significant education impact require a note from the student's parent or guardian. Notes are due within two (2) school days of the absence. Upon receipt of the appropriate note from the parent or guardian, these absences will not count toward the fourteen (14) days. All other absences will count towards a loss of academic credit.

Family vacations taken during school time are absences. Families should plan their vacations during the regularly scheduled school vacations and make appointments after school hours.

## APPENDIX G

MEETING OBSERVATION TOOL

| Student Code <br> (DATE/SCHOOL/NUMBER) | Student <br> Grade | Tardy <br> Problem? | Absence <br> Problem? | Dismissal <br> Problem? |
| :---: | :---: | :---: | :---: | :---: |
| $1023 / 3 / \# 1$ (example) |  | Yes | Yes | Yes |
|  |  | No | No | No |


| Personnel Present | Present | Not <br> Present | Comment <br> Tally | Total \# |
| :--- | :--- | :--- | :--- | :--- |
| Parent/Guardian |  |  |  |  |
| Student(s) |  |  |  |  |
| Truancy Prevention Specialist |  |  |  |  |
| Family Advocate (outside agency) |  |  |  |  |
| Principal |  |  |  |  |
| Assistant Principal |  |  |  |  |
| School Adjustment Counselor |  |  |  |  |
| Teacher(s) |  |  |  |  |
| Other: |  |  |  |  |


| Component | Rating | Evidence/ Comments |
| :---: | :---: | :---: |
| 1. Introductions |  |  |
| 1. All team members introduced to parent/guardian | $0 \begin{array}{lll}0 & 1 & 2\end{array}$ |  |
| 2. Program explained to parent/guardian(s) | $0 \quad 112$ |  |
| 2. Problem Identification |  |  |
| 3. One or more strengths of student/family identified. | $\begin{array}{lll}0 & 1 & 2\end{array}$ |  |
| 4. One or more problem areas were identified. | 0 1-1 |  |
| 5. Documentation of student's attendance made available to all team members. | $0 \quad 12$ |  |
| 6. Data describing current and expected student attendance were discussed. | $0 \quad 12$ |  |
| 3. Problem Analysis |  |  |
| 7. Background information gathered from the student's parent/guardian related to attendance problem. | $0 \quad 12$ |  |
| 8. Background information gathered from school staff related to attendance problem. | $0 \quad 12$ |  |
| 9. Consensus reached among all team members about the root cause(s) of ongoing attendance problem. | $0 \quad 12$ |  |
| 4. Intervention Development |  |  |
| 10. Home/Community-Based interventions developed. | $\begin{array}{lll}0 & 1 & 2\end{array}$ |  |
| 11. School-based interventions developed. | 0 1-1 |  |
| 12. Intervention(s) were individualized to specific areas of need for student/family. | $0 \quad 12$ |  |
| 13. Written intervention plan developed and signed by all team members. | $0 \quad 12$ |  |
| 5. Follow-Up/Progress Monitoring |  |  |
| 14. Procedure for follow-up discussed. | $0 \quad 1$ |  |
| 0 = Absent 1 = Somewhat Present |  | = Present |
| Global Meeting Ratings |  |  |
| Domain | Rating |  |
| Shared Decision-Making | $0 \quad 1$ | 2 |
| Collaboration | $0 \quad 1$ | 2 |
| Conflict (beginning of meeting) | $0 \quad 1$ | 2 |
| Conflict (end of meeting) | $0 \quad 1$ | 2 |
| 0-Not Observed 1 - Somewhat Observed | 2 - Consistentl | y Observed |

## APPENDIX H

## DATA AGREEMENT PLAN

## Agreement for Outside Contractor/Agency/Individual to access

 Public School Student DataThis Agreement is made by and between Brendan Keenan $\qquad$ ("Contractor/Agency") and Public Schools $\qquad$ Contractor/Agency and ("parties") agree as follows:

1) appoints Contractor/Agency/Individual as a "school official" as that term is used in Title 34, Code of Federal Regulations, $\S \S 99.7$ (a)(3)(iii) and 99.31 (a)(1), for the purpose of conducting a study that will examine the impact of the district's Tier 2 attendance intervention on elementary attendance outcomes..
2) The determines that Contractor/Agency/Individual has a "legitimate educational, research, or safety interest.
3) Contractor/Agency shall comply, as though it were the with all of the requirements of the federal Family Educational Rights and Privacy Act ("FERPA") (20 U.S.C. 1232g) and the regulations adopted there under (34 C.F.R. 99) which address disclosure to third parties of record data.
4) To effect the purposes of this Agreement, may from time to time provide Contractor/Agency with certain personal identifiable information of 's students, faculty and employees that is regulated by various state and federal laws and regulations. The Contractor/Agency represents that it maintains appropriate data security measures, including a written information security policy, to protect consistent with all applicable state and federal laws and regulations. Further, to protect the privacy of $\longrightarrow$ data, the Contractor/Agency will, for so long as it retains student information (1) maintain the confidentiality of information as set forth in this Agreement; (2) limit access to data to Contractor/Agency employees, agents and subcontractors who need access to fulfill Contractor/Agency obligations hereunder; (3) require that its agents and subcontractors who have access to student data agree to abide by the same restrictions and conditions that apply to Contractor/Agency; (4) implement appropriate administrative, technical and physical safeguards designed to ensure the security or integrity of $\square$ student information and protect against unauthorized access to or use of $\longrightarrow$ student data that could result in substantial harm or inconvenience to the
5) Access to student data will be limited solely to the individuals whose names and addresses appear on the attached Exhibit A.
6) Contractor/Agency agrees to submit a draft of any proposed publication to $\longrightarrow$ that utilizes $\longrightarrow$ student data for their review at least thirty (30) days prior to submission for publication, presentation, or use. All publications and/or presentations of data will anonymize results so that the district and its schools are not identified.
7) Contractor/Agency shall use student data only for the specific purpose outlined in this agreement. All other uses by Contractor/Agency will require written consent by
8) Contractor/Agency shall hold harmless, defend and indemnify $\longrightarrow$, its officers, and employees, from any claim, cause of action, or losses suffered by as a result of an intentional or negligent act or omission of Contractor/Agency, or Contractor/Agency's failure to comply with this Agreement or with the requirements of FERPA, HIPPA, or 201 CMR 17.00.
9) This Agreement may be amended in writing signed by individuals having authority to bind the parties. The Agreement shall continue in effect until terminated. Either party may terminate the Agreement by giving 30 calendar days written notice to the individual who signs this Agreement for the other party or his or her successor in office.

By signing below each party manifests its agreement to all of the provisions of this Agreement.

| District: | Schools | Contractor/Agency: | Brendan Keenan |
| :---: | :---: | :---: | :---: |
| Signed: |  | Signed: | Brendar Keenan, Msw, cAGs |
| Printed |  | Printed Name: | Brendan Keenan |
| Name: |  |  |  |
| Title: |  <br> Accountability Officer | Title: | School Adjustment Counselor |

## Exhibit A

## Individuals Authorized to Access Student Information Under This Agreement

1. Name: _Brendan Keenan $\qquad$
Address: $\quad 13$ Knowles Road
City/State: Worcester, MA 01602 $\qquad$
2. Name:

Address:
City/State: $\qquad$
3. Name:

Address: $\qquad$
City/State: $\qquad$
4. Name:

Address: $\qquad$
City/State:
5. Name:

Address:
City/State: $\qquad$

## APPENDIX I

## CORRELATIONAL TABLES FOR LEP STATUS (ABSENCES \& TARDIES)

LEP Status Group Statistics for Independent Samples T-test (Absences and Tardies 20 Days After Intervention)

|  | Student's Limited English Proficiency (LEP) Status | N | Mean | Std. <br> Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Change in absence \% 20 days following intervention | Non LEP | 62 | 3.719 | 6.9722 | . 8855 |
|  | LEP | 21 | 5.168 | 9.0215 | 1.9686 |
| Change in tardy \% 20 Days following intervention | Non LEP | 62 | 7.133 | 10.9157 | 1.3863 |
|  | LEP | 21 | 9.460 | 12.0148 | 2.6218 |

LEP Status Independent Samples T-test Results (Absences and Tardies 20 Days After Intervention)

|  |  | Levene's Test for Equality of Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | $\begin{gathered} \hline \text { Sig. } \\ (2- \\ \text { tailed) } \end{gathered}$ | Mean Differen ce | Std. <br> Error <br> Differ <br> ence | 95\% Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% 20 days following interventio n | Equal variance s assumed |  | 1.133 | . 290 | -. 762 | 81 | . 448 | -1.4488 | 1.9013 | -5.2318 | 2.3341 |
|  | Equal variance s not assumed |  |  | -. 671 | 28.528 | . 508 | -1.4488 | 2.1586 | -5.8669 | 2.9692 |
| Change in tardy \% 20 Days following interventio n | Equal variance s assumed | . 150 | . 699 | -. 823 | 81 | . 413 | -2.3270 | 2.8271 | -7.9521 | 3.2980 |
|  | Equal variance s not assumed |  |  | -. 785 | 31.928 | . 438 | -2.3270 | 2.9658 | -8.3687 | 3.7146 |

## APPENDIX J

## CORRELATIONAL TABLES FOR STUDENT'S FIRST LANGUAGE STATUS (ABSENCES \& TARDIES)

Student's First Language Group Statistics for Independent Samples T-test (Absences and Tardies 20 Days After Intervention)

|  | Student's <br> First <br> Language | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in <br> absence \% 20 <br> days following <br> intervention | Not English | 25 | 4.991 | 8.6475 | 1.7295 |
| Change in <br> tardy \% 20 <br> Days <br> following <br> intervention | Not English | 25 | 10.046 | 11.5637 | 2.3127 |
|  | English | 58 | 6.720 | 10.9527 | 1.4382 |

Student's First Language Independent Samples T-test Results (Absences and Tardies 20
Days After Intervention)

|  |  | Levene's <br> Test for <br> Equality <br> of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | $95 \%$ConfidenceInterval of theDifference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% 20 days following intervention | Equal variances assumed |  | . 787 | . 378 | . 719 | 81 | . 474 | 1.2954 | 1.8023 | -2.2906 | 4.8815 |
|  | Equal <br> variances <br> not <br> assumed |  |  | . 661 | 38.235 | . 512 | 1.2954 | 1.9593 | -2.6701 | 5.2609 |
| Change in tardy \% 20 Days following intervention | Equal variances assumed | . 072 | . 790 | 1.248 | 81 | . 216 | 3.3263 | 2.6646 | -1.9754 | 8.6280 |
|  | Equal variances not assumed |  |  | 1.221 | 43.416 | . 229 | 3.3263 | 2.7234 | -2.1645 | 8.8171 |

## APPENDIX K

## CORRELATIONAL TABLES FOR STUDENT BIRTHPLACE (ABSENCES \& TARDIES)

Student's Place of Birth Group Statistics for Independent Samples T-test (Absences and Tardies 20 Days After Intervention)

|  | Student's Place of <br> Birth | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in absence \% 20 <br> days following <br> intervention | Outside of district | 9 | 7.732 | 10.5143 | 3.5048 |
|  | In district | 74 | 3.643 | 7.0297 | .8172 |
| Change in tardy \% 20 <br> Days following <br> intervention | Outside of district | 9 | 5.619 | 9.3354 | 3.1118 |

Student's Place of Birth Independent Samples T-test Results (Absences and Tardies 20 Days After Intervention)

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | 95\% Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% 20 days following intervention | Equal variances assumed |  | 1.392 | . 242 | 1.556 | 81 | . 124 | 4.0893 | 2.6289 | -1.1414 | 9.3199 |
|  | Equal variances not assumed |  |  | 1.136 | 8.891 | . 286 | 4.0893 | 3.5988 | -4.0670 | 12.2456 |
| Change in tardy \% 20 <br> Days following intervention | Equal variances assumed | . 271 | . 604 | -. 596 | 81 | . 553 | -2.3586 | 3.9607 | -10.2391 | 5.5219 |
|  | Equal variances not assumed |  |  | -. 697 | 11.129 | . 500 | -2.3586 | 3.3826 | -9.7931 | 5.0758 |

## APPENDIX L

## CORRELATIONAL TABLES FOR WHITE/NON-WHITE STUDENTS (ABSENCES \& TARDIES)

Student's Ethnicity Group Statistics for Independent Samples T-test (Absences and Tardies 20 Days After Intervention)

|  | Non-White vs. <br> White |  | Mean | Std. <br> Deviation | Std. Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Change in <br> absence \% 20 <br> days following <br> intervention | Non-White | 54 | 4.581 | 7.5046 | 1.0212 |
|  | White | 29 | 3.164 | 7.5670 | 1.4051 |
| Change in tardy <br> \% 20 Days <br> following <br> intervention | Non-White | 54 | 8.589 | 10.4529 | 1.4225 |
|  | White | 29 | 6.108 | 12.4403 | 2.3101 |

Student's Ethnicity Independent Samples T-test Results (Absences and Tardies 20 Days After Intervention)

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | $\begin{array}{\|c\|} \hline \text { Sig. } \\ (2- \\ \text { tailed) } \end{array}$ | Mean Difference | Std. Error Difference | $95 \%$ConfidenceInterval of theDifference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% 20 days following intervention | Equal variances assumed |  | . 774 | . 382 | . 818 | 81 | . 416 | 1.4169 | 1.7327 | -2.0305 | 4.8644 |
|  | Equal <br> variances <br> not <br> assumed |  |  | . 816 | 56.992 | . 418 | 1.4169 | 1.7371 | -2.0615 | 4.8954 |
| Change in tardy \% 20 Days following intervention | Equal variances assumed | 1.115 | . 294 | . 964 | 81 | . 338 | 2.4804 | 2.5739 | -2.6408 | 7.6015 |
|  | Equal variances not assumed |  |  | . 914 | 49.499 | . 365 | 2.4804 | 2.7129 | -2.9701 | 7.9308 |

## APPENDIX M

## CORRELATIONAL TABLES FOR FAMILY INCOME STATUS (ABSENCES \& TARDIES)

Student Family’s Income Status Group Statistics (for Independent Samples T-test)

|  | Student <br> Family's <br> Income Status | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | :---: |
| Change in <br> absence \% 20 <br> days following <br> intervention | Non low-income | 11 | 1.228 | 7.5665 | 2.2814 |
|  | Low-income | 72 | 4.523 | 7.4587 | .8790 |

Student Family's Income Status Independent Samples T-test Results

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | 95\% <br> Confidence Interval of the Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in absence \% | Equal variances assumed |  | . 318 | . 574 | -1.36 | 81 | . 177 | -3.2948 | 2.4189 | -8.1077 | 1.5181 |
| 20 days following intervention | Equal variances not assumed |  |  | -1.35 | 13.149 | . 201 | -3.2948 | 2.4449 | -8.5705 | 1.9810 |

Student Family's Income Status Group Statistics (for Independent Samples T-test)

|  | Student <br> Family's <br> Income Status | $\mathbf{N}$ | Mean | Std. <br> Deviation | Std. <br> Error <br> Mean |
| :--- | :--- | ---: | ---: | ---: | :---: |
| Change in <br> tardy \% 20 <br> Days following <br> intervention | Non low- <br> income | 11 | 10.811 | 9.5593 | 2.8822 |
|  | Low-income | 72 | 7.250 | 11.3867 | 1.3419 |

Student Family's Income Status Independent Samples T-test Results

|  |  | Levene's <br> Test for <br> Equality of <br> Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | $\begin{gathered} \text { Sig. } \\ \text { (2- } \\ \text { tailed) } \end{gathered}$ | Mean Difference | Std. Error <br> Difference | $95 \%$ <br> Confidence <br> Interval of the <br> Difference |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Change in tardy \% 20 | Equal variances assumed |  | . 371 | . 544 | . 984 | 81 | . 328 | 3.5608 | 3.6184 | -3.6386 | 10.7602 |
| Days following intervention | Equal <br> variances <br> not <br> assumed |  |  | 1.120 | 14.708 | . 281 | 3.5608 | 3.1793 | -3.2275 | 10.3491 |

## APPENDIX N

## SCATTERPLOTS OF MCAS (ELA AND MATH) AND POST INTERVENTION (20 DAYS AFTER) OUTCOMES FOR ABSENCES



Scatterplot of MCAS ELA Growth Percentile and Change in Attendance Percentage (20 days after intervention)


Scatterplot of MCAS Math Growth Percentile and Change in Attendance Percentage (20 days after intervention)

## APPENDIX 0

SCATTERPLOTS OF MAP READING AND MATH SCORES AND CHANGE IN ABSENCE PERCENTAGE 20 DAYS FOLLOWING THE INTERVENTION


Scatterplot of MAP Reading Scores (June, 2014) to Change in Absence Percentage (20 days after intervention)


Scatterplot of MAP Math Scores (June, 2014) to Change in Absence Percentage (20 days after intervention)

## APPENDIX P

## CORRELATIONAL TABLES OF MAP READING AND MATH SCORES AND CHANGE IN ABSENCE PERCENTAGE 20 DAYS FOLLOWING THE INTERVENTION

Correlation between Absence Percentage (20 days after) and MAP Reading Score

|  |  | June 2014 MAP <br> Reading Score | Change in absence \% 20 <br> days following <br> intervention |
| :--- | :--- | :--- | ---: |
| Spearman's <br> rho | June 2014 MAP <br> Reading Score | Correl. Coeff. | 1.000 |
|  | Sig. (2-tailed) | .082 |  |
|  | N | .54 | .521 |
|  | Change in absence \% <br> 20 days following <br> intervention | Correl. Coeff. | -.082 |

Correlation between Absence Percentage (20 days after) and MAP Math Score

|  |  |  | $\begin{gathered} \text { June } 2014 \\ \text { MAP Math } \\ \text { Score } \\ \hline \end{gathered}$ | Change in absence \% 20 days following intervention |
| :---: | :---: | :---: | :---: | :---: |
| Spearman's rho | June 2014 MAP Math Score | Correl. Coeff. | 1.000 | -. 059 |
|  |  | Sig. (2-tailed) |  | . 638 |
|  |  | N | 65 | 65 |
|  | Change in absence \% 20 days following intervention | Correl. Coeff. | -. 059 | 1.000 |
|  |  | Sig. (2-tailed) | 638 |  |
|  |  | N | 65 | 83 |

## APPENDIX Q

## SCATTERPLOTS OF MAP READING AND MATH SCORES AND CHANGE IN

 TARDY PERCENTAGE 20 DAYS FOLLOWING THE INTERVENTION

Scatterplot of MAP Reading Scores (June, 2014) to Change in Tardy Percentage (20 days after intervention)


Scatterplot of MAP Math Scores (June, 2014) to Change in Tardy Percentage (20 days after intervention)

## APPENDIX R

## CORRELATIONAL TABLES OF MAP READING AND MATH SCORES AND CHANGE IN TARDY PERCENTAGE 20 DAYS FOLLOWING THE INTERVENTION

Correlation between Tardy Percentage (20 days after) and MAP Reading Score

|  |  | June 2014 MAP <br> Reading Score | Change in tardy \% 20 <br> Days following <br> intervention |  |
| :--- | :--- | :--- | ---: | ---: |
| Spearman's <br> rho | June 2014 MAP <br> Reading Score | Correl. Coeff. | 1.000 | .156 |
|  | Sig. (2-tailed) |  | .218 |  |
|  | $\mathbf{N}$ | 64 | 64 |  |
|  | Change in tardy \% <br> 20 Days following <br> intervention | Correl. Coeff. | .156 | 1.000 |
|  | Sig. (2-tailed) | .218 | . |  |
|  | $\mathbf{N}$ | 64 | 83 |  |

Correlation between Tardy Percentage (20 days after) and MAP Math Score

|  |  |  | $\begin{gathered} \hline \text { June } 2014 \\ \text { MAP Math } \\ \text { Score } \end{gathered}$ | Change in tardy \% 20 Days following intervention |
| :---: | :---: | :---: | :---: | :---: |
| Spearman's rho | June 2014 MAP <br> Math Score | Correl. Coeff. | 1.000 | . 122 |
|  |  | Sig. (2-tailed) |  | . 332 |
|  |  | N | 65 | 65 |
|  | Change in tardy \% 20 Days following intervention | Correl. Coeff. | . 122 | 1.000 |
|  |  | Sig. (2-tailed) | . 332 |  |
|  |  | N | 65 | 83 |

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