

AVOID SIMPLE SOLUTIONS AND QUICK FIXES

Paper submitted to Closing the School Discipline Gap:
Research to Practice

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*LESSONS LEARNED
FROM A
COMPREHENSIVE
DISTRICTWIDE
APPROACH TO
IMPROVING
CONDITIONS FOR
LEARNING*

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ABSTRACT

Urban schools are often viewed as disorderly and unsafe and often have poor conditions for learning that affect student attendance, behavior, achievement, and safety. These conditions include the experience of emotional and physical safety, connectedness to and support from caring adults and peers, peer social and emotional competence, and academic engagement and challenge. Although connectedness and appropriate mental health services can improve safety as well as conditions for learning, many school districts focus on control through hardware and security officers. This paper examines the Cleveland Metropolitan School District's (CMSD) systematic efforts during the past four years that incorporated regular use of school-level data to improve safety, order, and the conditions for learning. These districtwide approaches included implementing (1) an empirically validated social and emotional learning program that helps students in elementary grades to understand, regulate, and express emotions (*Promoting Alternative Thinking Strategies*, or *PATHS*); (2) *student support teams*, a widely used planning model for students who exhibit early warning signs (including those related to attendance and behavior) with a referral process to respond to student needs in a timely, coordinated, and effective manner; and (3) *planning centers*, which replaced punitive in-school suspension with a learner-centered approach to discipline that focuses on student needs and helps students learn self-discipline, and aligns with the student support teams and CMSD's focus on social and emotional learning.

Five sets of findings illustrate the importance of CMSD's efforts between 2008–09 and 2010–11 (and, in one case, 2010–12):

- Improved conditions for learning for students in Grades 5 to 12.
- Improved teacher ratings of student social competence and attentiveness, but not in aggression, for students K–5 during the 2010–12 academic years.
- Improved student attendance districtwide, which increased 1.5 percentage points.
- Improved student behavior—the average number of reported suspendable behavioral incidents per school declined from 233.1 to 132.4, including reductions in:
 - Disobedient/disruptive behavior (from 131.8 to 73.9).
 - Fighting/violence (from 54.5 to 36.4).
 - Harassment/intimidation (from 12.8 to 5.6).
 - Serious bodily injury (from 13.3 to 5.8).
- Reduced use of school removal:
 - Out-of-school suspensions decreased districtwide by 58.8%.

Our analyses suggest the importance of implementation quality for PATHS, student support teams, and planning centers. Implementation quality, as reported by CMSD staff, was related to changes in behavior and conditions for learning. For example:

- Disciplinary incidents *decreased* more in schools with “medium” or “high” implementation of PATHS (35.9%), student support teams (49.1%), and planning centers (51.4%).
- Perceptions of safety increased more where these three interventions were rated higher in terms of their implementation quality.

Although our data suggest that the rate of suspension and expulsion decreased, disparities may remain. Our analyses of Office for Civil Rights (OCR) data for the one year available (2009–10) determined that the relative risk of experiencing suspension or expulsion for male and female Black and Latino students with or without disabilities was *higher* than for their White peers. In addition, the relative risk increased as disciplinary actions moved from less serious to more serious responses (i.e., from in-school suspension to one out-of-school suspension, more than one out-of-school suspension, and expulsion).

Improved conditions for learning as well as student support interventions can reduce reliance on suspension and expulsion while fostering safer, more productive school communities. The paper concludes with six recommendations to improve conditions for learning, provide effective student support, and reduce discipline-related disparities:

- (1) External audits of conditions for learning and disparities in school discipline and safety.
- (2) Use of conditions for learning data to inform improvement efforts.
- (3) Three-tiered approaches to prevention and addressing mental health challenges, including those related to trauma.
- (4) Evidence-based social and emotional learning programming.
- (5) Broadened incentives for investing in student support
- (6) Improved implementation quality of interventions and greater cultural competence of school staff.

Transforming the conditions contributing to exclusionary discipline will often require a sustained, multi-year effort. This should begin with an understanding that a culture of change, unlike “quick fixes” like metal detectors, requires an extended period of time to engage stakeholders, cultivate their buy-in, and develop and implement an effective plan.

I. INTRODUCTION

Urban schools are often viewed as disorderly and unsafe and often have poor conditions for learning that affect student attendance, behavior, achievement as well as safety. When positive, these conditions include the experience of emotional and physical safety, connectedness to and support from caring adults and peers, peer social and emotional competence, and academic engagement and challenge. Although connectedness, mental health support, and the provision of appropriate mental health services can improve safety as well as the conditions for learning, many school districts focus on control through hardware and security officers. Policymakers and researchers need more information to understand how interventions intended to improve school climate and conditions for learning can reduce reliance on suspension and expulsion while fostering safer school communities. They also need information on how to support the effective implementation of practices that reduce or eliminate exclusionary discipline and improve conditions for learning. The Cleveland Metropolitan School District (CMSD) has experienced challenges in its schools, but has undertaken multiple efforts to improve teaching and supports for students to improve their social competence, behavior, and academic growth. Both CMSD's successes as well as the implementation challenges that they have faced provide a proof point that conditions for learning can be improved and that alternatives to punishment and exclusion can be developed. The CMSD experience as well as this paper's findings demonstrate that policymakers and school leaders should look beyond "quick fixes" for school safety issues, such as zero tolerance policies, armed police in schools, and metal detectors if they want to improve discipline, reduce removal from opportunities to learn, and improve student well-being.

These analyses are rooted in an extensive body of research that demonstrates the importance of safe and orderly schools (Cornell & Mayer, 2010; Osher, Dwyer, Jimerson, & Brown, 2012). Students want to attend safe schools where they can learn; families want their children to attend safe and productive schools; teachers, staff, and administrators want to work in safe environments that minimize distractions; and public policy mandates safety and achievement. The frequent response to the lack of school safety and the presence of student disorder is control-oriented approaches that include surveillance through technology, punishment, and exclusionary discipline (Borum, Cornell, Modzeleski, & Jimerson, 2010; Gagnon & Leone, 2001; Osher, Bear, Sprague, & Doyle, 2010). This control-oriented approach is particularly pervasive in urban settings serving large numbers of students of color who experience the adversities of poverty and racism (Gregory, Skiba, & Noguera, 2010; Losen & Skiba, 2010).

A series of Federal reports, based on expert reviews and released by President Clinton and his Surgeon General, Attorney General, and Secretary of Education, called for an alternative public health approach to creating safe and orderly schools at a time when school discipline and violence was a public priority (Dwyer & Osher, 2000; Dwyer, Osher, & Warger, 1998; U.S. Department of Health & Human Services, 1999). These reports recommended a data-driven, three-tiered approach to promoting safety and order—universal prevention, early intervention for students who were at elevated levels of risk, and individualized interventions for students who

were at the highest level of risk. This approach has been applied to efforts to address the “pipeline to prison” and school dropout for children of color (Osher, Woodruff, & Sims, 2002; Osher, Sandler, & Nelson, 2001; Osher, Morrison, & Bailey, 2003), was incorporated in the Safe Schools, Healthy Students Initiative (Furlong, Paige, & Osher, 2003), and was called for in response to the December 14, 2012 school shootings at Sandy Hook Elementary School (Astor et al., 2012). However, this approach is contested and has not been institutionalized in the policies and procedures of many schools and districts where many stakeholders still believe that control-oriented approaches are necessary in their communities due to the high level of risk factors that affect their students, and that “soft” youth development approaches will not work in their community context.

CMSD, which struggles with many of these risk factors, offers a powerful example to those who say that it is not possible in their community. Currently, 100% of CMSD’s students receive free lunch at school. The majority of CMSD students are also students of color, and more than 80% of the students are Black or Latino. Moreover, in 52 of the district’s 99 schools, students of color make up more than 90% of the student body. Beginning in the 2008–09 school year, CMSD adopted a three-tiered public health approach to address the impact of high levels of community and school risk factors on school safety and order, to reduce the number of suspendable behavioral incidents and to improve attendance and conditions for learning districtwide. This paper examines CMSD’s efforts during the past four years to improve conditions for learning and safety. These efforts were undertaken in response to a districtwide audit that the American Institutes for Research (AIR) conducted for CMSD and the Mayor of Cleveland in 2007–08 to assess the district’s needs regarding student connectedness, safety, student support, and other conditions for learning.

This paper focuses on the four districtwide efforts that CMSD has undertaken to improve student social competence, behavior, and other outcomes. These efforts have included: (1) data-informed planning that uses data on conditions for learning, (2) implementing the Promoting Alternative Thinking Strategies (PATHS) social and emotional learning program in Prekindergarten to Grade 5, (3) establishing student support teams to review student needs and connect students to appropriate resources, and (4) opening planning centers as an alternative to in-school suspension and to reduce escalation of negative student behavior as well as out-of-school suspension. Analyses enable us to draw conclusions about the some of the effects of these efforts on safety, order, and other conditions for learning and to determine the extent to which higher-quality implementation of three of these interventions—PATHS, student support teams, planning centers (which are described in more detail later in the paper)—is associated with improved discipline and reduced suspensions, and related gender and racial/ethnic disparities. Specifically, the paper addresses the following questions:

1. Overall, what changes in student attendance, behavior, and conditions for learning are evident between 2008 and 2011?
 - Have conditions for learning become more positive?
 - Have suspendable behaviors decreased?
2. What changes in elementary students’ social and emotional competence, attention, and aggression occurred between 2010 and 2012?

3. Do these outcomes and perceptions vary by student characteristics (e.g., race/ethnicity, gender, disability status)?
4. To what extent are changes in student behavior and student reports of conditions for learning associated with the quality of implementation of three interventions: PATHS, student support teams, and planning centers?¹

The analyses draw upon three years of data from surveys of student perceptions of conditions for learning along with academic achievement, attendance, discipline, and safety data, which we linked at the student level where possible.

Our analyses suggest both the value of implementing a three-tiered, data-driven public health approach and the relationship between implementation quality and outcomes. We first provide an overview of key literature and theory that underlies the significance of this work. We then describe the Cleveland context more fully, including CMSD's response to violence and inadequate school discipline. This includes the research background for the use of conditions for learning data in planning and for the overall approach to each of three interventions—PATHS, student support teams, planning centers—that CMSD implemented districtwide to realize the public health approach (Gordon, 2012). We then describe changes in student outcomes and school conditions, along with more findings related to the effects of implementation quality, and conclude the paper by exploring its implications for education policy and practice.

II. LITERATURE AND THEORY

The importance of safe, supportive schools and communities is particularly great for children who experience the adversities of poverty (Gregory et al., 2010; Kendziora & Osher, 2009). Schools, districts, and communities often struggle to address the needs of these students, and many of these students attend schools where staff are overwhelmed by the unmet student needs (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Kendziora & Osher, 2009) and where neither staff nor students receive the supports necessary to meet high behavioral and academic standards (Osher, Sandler, & Nelson, 2001). These schools sometimes have been characterized as truly disadvantaged schools (Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006). These schools often experience poor conditions for learning and disproportionate levels of disciplinary challenges and violence.

The typical responses to such problems are either suppression through punitive and exclusionary strategies, which have little empirical support and have even been demonstrated to exacerbate problems (Borum, et al, 2010; Sulzer-Azaroff & Mayer, 1991), or throwing interventions at problems without a systematic plan. Examples of suppression include zero tolerance, which has little evidence to support its effectiveness (American Psychological Association Zero Tolerance Task Force, 2008; Cornell & Mayer, 2010; Gladden, 2002; Mayer & Leone, 2007), and the repeated use of suspension from school, which has been shown to contribute to academic failure, student disengagement from school, antisocial behaviors, and dropout (Gregory, et al, 2010;

¹ The fourth intervention, districtwide data-informed school planning, is not included here because all schools participated in this effort during regularly scheduled planning meetings with central office leadership.

Harvard University, Civil Rights Project, 2000; U.S. Department of Education, National Center for Education Statistics, 2006). Examples of throwing interventions at problems are the proliferation of un- or under-aligned prevention programs, many of which lack a scientific base, in schools (Gottfredson & Gottfredson, 2001). This contributes to “Christmas tree” schools and districts (Bryk, Sebring, Kerbow, Rollow, & Easton, 1998; Fullan, 2001) with lots of uncoordinated programs.

These same challenges can exist at a community level as well. Urban communities tend to have high levels of poverty, which place children at risk for emotional and behavioral problems at school and in the community. Cleveland’s estimated poverty rate for residents under 18 was 53.9% percent in 2011 (U.S. Census Bureau, 2011). Excessive lead exposure also places children at risk for academic problems and anti-social behavior, and Cleveland’s rate at the time of AIR’s audit was 17%, compared with 2% nationally (Center for Health Affairs, 2007; Osher et al., 2008). Services in many communities are fragmented (Osher, 2002), which may contribute to a reliance on punitive and reactive approaches to school discipline and safety that lack empirical support (Osher, Quinn, Poirier, & Rutherford, 2003; U.S. Public Health Service, 2000).

III. CLEVELAND DISTRICT CONTEXT AND INTERVENTIONS

The Cleveland Metropolitan School District (CMSD) currently has 41,000 students, 68.0% of whom are African American, 14.6% of whom are White, and 13.2% of whom are Latino (Gordon, 2012). Unlike almost all other large urban districts, 100% of CMSD students receive free or reduced price lunch, with 2,877 homeless students during the 2011–12 school year and more than one third of students changing their school of enrollment during the school year due to poverty-driven mobility (Gordon, 2012).

A 2008 study (Osher et al., 2008) documented risk factors for poor discipline and violence, which make CMSD’s successes particularly relevant to those who say not work in their school, district, or community, due to their school, district’s or community’s level of need. These risk factors included:

- Reactive, punitive, and inconsistent approaches to discipline at home and in school, which set the stage for behavioral problems (Mayer, 2001; Mayer & Sulzer-Azaroff, 1991; Patterson, Reid, & Dishion, 1992; Strauss, 1991).
- High levels of long-term poverty, which make adverse childhood experience more likely and increase the likelihood that children will arrive at school with inadequate relationship and self-regulatory skills.
- High rates of lead poisoning and lead effect compared to other U.S. cities. These toxicities place students at risk for academic problems and anti-social behavior (Needleman, McFarland, Ness, Fienberg, & Tobin, 2002). The percentages in 2006 were 2% nationally, and between 17% and 21% in Cleveland (Center for Health Affairs, 2007; Environmental Health Watch, n.d.).
- Poor conditions for learning in schools. For example, compared to Chicago where the same survey was administered, Cleveland students felt less safe, less supported by

teachers, and viewed their fellow students as having poorer social and emotional competencies (Osher et al., 2008).

- Relatively high student engagement in risky behavior. According to CMSD’s 2004 Youth Risk Behavior Survey (YRBS) of students in Grades 9–12, significantly more students (43.7%) reported being in a physical fight during the 12 months prior to taking the survey than was reported at the national level (33.0%); 22.5% of males and 13.1% of females reported they carried a weapon to school during the 30 days prior to the survey. In addition, according to CMSD’s 2008 YRBS of students in Grades 7 and 8, 10.8% of male and 6.6% of female students carried a weapon to school during the 30 days prior to the survey and 44.7% of males and 32.0% of females reported being in a physical fight on school property at least once during the 12 months preceding the survey (Case Western Reserve University, n.d.).
- Many schools where the mental health needs of students overran the capacity of schools. In these types of schools, the behavior of students with unaddressed mental health needs drives staff attention so that staff members experience the school as being out of control—the school focuses on fighting, rather than preventing, “fires” and on punishment rather than on prevention (Kendziora & Osher, 2009; Osher et al., 2008; Sebring, et al, 2006; Turnaround for Children, 2012).

Cleveland started to address these concerns after a shooting when a student suspended for fighting came to school with a gun, shot two adults and two students, and killed himself. This shooting took place at a small high school with a problem-based technology-focused curriculum, funded by the Gates Foundation. Cleveland’s first response was a \$3.4 million dollar investment in metal detectors and a \$3.7 million investment in new security officers, which in the words of a city council member, “demonstrate[d] that the district is finally getting tough on crime in the schools”—what a blogger described as “hallways full of students during classes, instead of in class.... lots of disrespectful students cursing and disrespecting teachers in class” (Turner, 2007). However, Cleveland did not stop there. Its leadership distinguished between “hardware” and “Humanware,”

Cleveland commissioned an audit conducted by AIR to assess the quality and sufficiency of existing health and human services provided to CMSD students. Following a comprehensive

Box 1. Recommendations of AIR’s Audit

- Build a climate for change and sustain it over multiple years using data on a small number of metrics to refine interventions and enhance the CMSD’s approaches to improving student outcomes and well-being.
- Use data for planning, monitoring and evaluation.
- Employ a three-tiered approach to building conditions for and capacities to learn and teach.
- Avoid single solutions or unaligned multiple solutions for complex, but interrelated problems.
- Eliminate ineffective or counterproductive practices and behaviors.
- Align promotion and prevention, early intervention and treatment in a manner that will both address immediate needs as well as prevent the incidence and magnitude of problems.
- Support the ability of schools, agencies and staff to systematically implement proven practices and programs with quality.

assessment, the audit made a number of key recommendations, which were grounded in previously cited research (see Box 1; Osher et al., 2008).

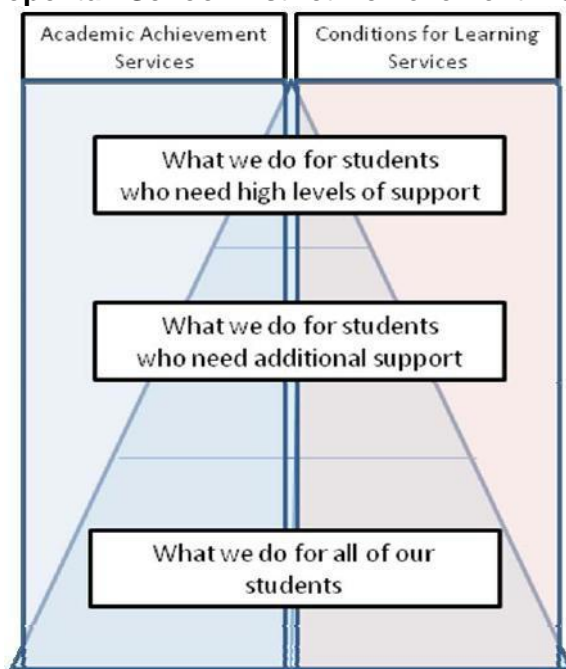
Cleveland implemented many of the audit's recommendations and sustained that implementation through the "Great Recession," loss of revenue and closing schools due to decreases in student enrollment, staff layoffs, the implementation of a transformation plan (which incorporated Humanware) and the retirement of the Chief Executive Officer (CEO). CMSD's sustained effort reflected high-level support from the district's CEO, Cleveland's mayor, Cleveland Teachers Union (CTU), and a school board committed to the effort, which was also supported by an influential local newspaper, the human services community, and the largest local philanthropy. The Chief Academic Officer (CAO) was ultimately responsible for implementation and actively involved in this work. He distributed leadership for this work to a Humanware Executive Committee, which included managers of student support services, representatives of the chief of security, who actively supported this work, and members of the CTU, who played an important role in designing and operationalizing the interventions.

Cleveland chose to implement its activities systemically and universally from the beginning. This garnered the attention of more of the district community, and may have led to the ability to sustain and extend the effort through tough times. However, it also meant that variable implementation quality ensued. Some schools and staff were innovators and early adopters, embracing the new ideas and more readily understanding the underlying principles that framed the new approaches. Others did not initially embrace or understand the underlying logic of the new approaches, or passively resisted new expectations.

The current CMSD Academic Achievement Planning (AAP) model for improving student achievement is directly influenced by broadly applied public health research (Dwyer & Osher, 2000; Vaughn, 2006; Venkatesh, 1997; Zenere & Lazarus, 2009) and employs a three-tier framework (the public health triangle) for promotion and prevention (Figure 1). At the bottom tier, the model focuses on universal promotion and prevention strategies designed to build a schoolwide foundation of resources and supports planned for all learners. In the middle tier the model focuses on early intervention strategies for learners who exhibit the need for additional levels of assistance and support. The top tier focuses on providing intensive, coordinated, and individualized interventions to those learners exhibiting the need for significant assistance and support.

Within both the first and second tiers, the model specifically considers strategies and resources associated with typical academic achievement planning (e.g., written curriculum, identified instructional resources). Unlike academic improvement strategies typically employed by U.S. school districts, however, the CMSD model also intentionally considers strategies and resources that affect conditions for learning (e.g., levels of student support, social and emotional learning skills, etc.) as well. CMSD's AAP approach splits the public health triangle down the center, with one side organized around academic interventions and supports and the other side organized around the social and emotional conditions for learning. At the top tier, traditional academic achievement planning and conditions for learning are integrated to facilitate individualized supports for students with the greatest need.

Figure 1. Cleveland Metropolitan School District Achievement Model



This model for academic improvement serves as a frame to unite many different stakeholders in the quest to rapidly and significantly improve conditions for learning and academic achievement. Members from various departments of the district's organizational structure are able to quickly unite their varied work using this model. Key elements in Cleveland's Humanware implementation were (and are):

1. Using conditions for learning student survey data to frame planning, monitoring, and evaluation for all students and schools (universal).
2. Implementing a universal evidence-based SEL program (PATHS) in all elementary schools (universal).
3. Building an early warning system and replacing in-school suspension with planning centers (universal for students whose attendance and behavior indicates that they are at risk).
4. Replacing ineffective special education-driven intervention teams with student support teams (universal for students who are at risk and at elevated levels of risk).

These four elements were recently presented by CMSD's CEO as part of a plenary presentation at the U.S. Department of Education's meeting on *Building and Sustaining Capacity to Improve Conditions for Learning* (Gordon, 2012). The following is a brief description of schoolwide planning, PATHS, student support teams, and planning centers. This descriptive information on CMSD's approach to these interventions, which we now present, is important as other policy and decision makers think about their local efforts and more comprehensive efforts to address student behavior and school safety.

Data-Informed Schoolwide Planning That Included Data on Conditions for Learning

Schoolwide planning is important to identify needs and objectives, develop plans for addressing the needs and realizing objectives, monitoring and evaluating results, and making continuous improvement (Osher, et al., 2004). This process should be data informed and include data both on academic outcomes and the factors necessary to realize these outcomes (Johnson, Kendziora, & Osher, 2012). Failure to include metrics regarding how students experience the school environment can lead schools to ignore those aspects of school climate that are particularly important to engagement and learning. Conditions for learning are those aspects of the student's school-based experience and perception that, in interaction with student and teacher academic and social-emotional competencies, affect motivation, engagement, learning, and achievement (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Fredricks, Blumenfeld, & Paris, 2005; Goodenow, 1993; McNeeley, Nonnemaker, & Blum, 2002; Osher & Kendziora, 2010; Osher et al., in press; Osher, Cogshall, et al., 2012; Osher et al., 2007; Osterman, 2000; Wentzel & Wigfield 1998). These conditions, which were developed in consultation with an expert panel of researchers and practitioners, are:

- The experience of *physical and emotional safety*.
- The experience of *connectedness and support*.
- The experience of *challenge*.
- *Peer social and emotional competence* (Osher & Kendziora, 2010).

These conditions can be measured in an efficient, reliable, and valid manner through a relatively short survey that students can complete in 15 minutes (Osher & Kendziora, 2010). School reports for the survey are disaggregated to analyze data by gender, ethnicity, English Language Learner (ELL) and special education status, and grade.

The Academic Achievement Planning (AAP) model is the Cleveland Metropolitan School District's (CMSD) planning approach, which values equally planning for social and emotional conditions for learning and academic achievement. Cleveland's AAP process incorporates the disaggregated conditions for learning data² in its school and district planning process, which is implemented at the school level by a team that at minimum includes the principal, the CTU chapter chair, and three teachers (Gordon, 2009). Although teams varied in how much attention they gave to the data and, once they did, they also varied in their capacity to adapt interventions to the data, the teams began orienting their planning to social and emotional data, and this led to interventions such as mentoring, class meetings, and targeting of supports to student subgroups who appeared to experience poor conditions for learning. For example, during the 2008–09 school year, some schools used the first round of conditions for learning data to address a lack of student connectedness by adopting or adapting student and adult mentoring strategies. Over time, the district enhanced its support for the data-informed schoolwide planning process, and this

² These data included results by scale—Challenge, Peer Social-Emotional Climate, Safe and Respectful Climate, Student Support—including the percentage of students whose responses indicated the school “needs improvement,” is “adequate,” or is “excellent” on the given scale. Within each scale, data were disaggregated by grade level as well as student characteristics (race/ethnicity, gender, English Language Learner status, disability status).

enhanced the breadth and depth of use of the conditions for learning data.

Universal Social and Emotional Learning in Elementary Schools

Social and emotional learning (SEL) includes acquiring and mastering skills to recognize and manage emotions, develop caring and concern for others, establish positive relationships, make appropriate decisions, and handle challenging situations effectively (Elias et al., 1997). AIR's Humanware Audit recommended universal SEL in prekindergarten through Grade 12, to be implemented beginning in the 2009–10 academic year. Cleveland chose to first implement SEL at the primary school level due to limited resources, but also because an early intervention approach to social-emotional and behavior approaches is considered a best practice. After a planning process that involved teachers and the CTU as well as community agencies and pupil services professionals, the CMSD selected Promoting Alternative Thinking Strategies (PATHS), an empirically validated program that had been implemented successfully in schools that were demographically similar to Cleveland (Wright, Lamont, Wandersman, & Osher, in press). The PATHS curriculum, delivered by the classroom teacher, is divided into three separate units: self-control, feelings and relationships, and interpersonal cognitive problem solving. Students learn to understand, regulate, and express emotions. PATHS is used to teach students to recognize the feelings of others, to relate the experiences of others to themselves, to develop empathy for others, and to understand how the behaviors of others can affect their own emotions.

CMSD trained pre-K through Grade 2 teachers on PATHS to implement the program in 2009–10, and did the same for with Grade 3–5 teachers in 2010–11. Coaching was an important part of the implementation strategy, but Cleveland's financial constraints limited the number of coaches hired (7 rather than the 13 recommended by the developer), delayed their hiring, and prevented their rehiring for 2011–12. Training was also challenged by logistical problems, exacerbated by the rehiring of teachers during the course of the year. Still, PATHS became part of the education of many elementary school students via a coherent districtwide implementation strategy.

Student Support Teams

The student support team model that CMSD implemented is a widely used planning model for students who exhibit early warning signs. Intervention requires a referral process that can respond to student needs in a timely, coordinated, and effective manner. The model was recommended in *Safeguarding Our Children: An Action Guide* (Dwyer & Osher, 2000); which was vetted by 26 national organizations and by the expert panel convened at the request of President Clinton to address the warning signs of school violence (Dwyer, Osher, & Warger, 1998). In 2008–09, CMSD replaced a cumbersome special education planning process, which focused on identification rather than on consultation and referral, with the student support team, with one team in each school. The team meets weekly to discuss students' academic problems and problems such as tardiness, behavior issues, or difficulties blocking successful learning. The student support team's goal is to address students' problems in a timely manner to address warning signs and help them succeed and achieve in school.

Each student support team is made up of three staff: a building administrator, qualified teacher, and assigned support staff member (e.g., school psychologist, school counselor or school social worker). The team uses pre-referral interventions and coordinates with the Cleveland community

agencies that provide intensive school-based, coordinated mental health services to students. Student support team referrals can be made by a student's teacher, school staff member, external agency partner, parent, principal, or the student himself/herself. The referral is assigned to a school staff member who has the most knowledge of the student's functioning.

The student support team protocol for meetings has the following guidelines.

- **Assess the problem, review collected information, and identify and prioritize referral concerns** to develop appropriate intervention strategies.
- **Inventory and prioritize student strengths** with the goal of employing a positive approach that uses appropriate incentives to increase the likelihood that a student accepts and engages with the intervention strategies.
- **Review baseline data** related to the target behavior or difficulty and define the concern in observable/measurable terms (e.g., days absent, instances tardy, analysis of grades over time).
- **Set the goals** and spell out the process for monitoring the student's progress.
- **Design the intervention(s)** and designate who will implement (e.g., bus aide, teacher) — what is the intervention, where is it used, how often will the intervention take place, and what is the target success rate or level; and provide the *Intervention Tracking Form* to the individual implementing the intervention. This is to be completed regularly while the intervention is implemented.
- **Establish a method for measuring and review** by summarizing the case to ensure that stakeholders are clear on individual roles and intervention plan, reviewing the procedures for evaluating the intervention (method of determining success), and selecting date for follow-up meeting, if necessary.

Implementation required coordination with community agencies and redeploying CMSD's existing mental health professionals to maximize their ability to support these school-based teams. Challenges to implementation have included high levels of need at some schools which contributed to backlogs in handling of student support team referrals. In addition, layoffs of social workers diminished the number of professionals with mental health expertise. CMSD tried to address this decreased capacity by producing training materials, providing training, and central office efforts to monitor quality.

Planning Centers

CMSD replaced ineffective in-school suspension with planning centers that employ social and emotional learning strategies. These strategies use the Promoting Alternative Thinking Strategies (PATHS) concepts in schools with Grades K–8, and focus on student's learning to self-manage. The planning center model was first developed in Rhode Island and examined in a number of qualitative studies (Quinn, Osher, Hoffman, & Hanley, 1998; Woodruff et al., 1999). The planning center instructional aides (PCIA), who formally staffed in-school suspension rooms, now provide support to students in the planning centers and assume the role of a supportive resource instead of disciplinarian and gatekeeper. The planning centers were implemented in

2010–11, with training of PCIA's that year. In September 2010, 135 PCIA's received training on the planning center model, understanding behavior, de-escalation strategies, and their PCIA role. In February 2012, principals and PCIA's participated in a presentation focusing on the transition from in-school suspension to the planning center model, progress made as of that point, and data on implementation quality.

The planning center represented a fundamental reorientation of approaches to discipline from a punitive and exclusionary one to a more learner-centered one, by focusing on student needs, providing a place to cool down, and using protocols and resources to help students learn self-discipline. The purpose of planning centers in CMSD is described in the district's planning centers brochure for families and school staff, which is highlighted in Box 2. As needed, students are referred to student support teams for additional support. Students can also refer themselves to planning centers, which acknowledges that students may recognize the need to appropriately "escape" a situation and go to a safe, supportive environment. All PCIA's have the PATHS "problem solving sheet" and are encouraged to use it as they work with students. Some high schools may also use PATHS strategies and materials related to good decision making. The planning centers are a positive alternative to inappropriate escalation of problem student behavior and disruption to the learning environment.³

Box 2. Information from CMSD Planning Center Brochure

The planning center provides support and interventions for students, teachers and families. These supports and interventions will help prevent the escalation of inappropriate student behaviors by addressing academic, emotional, and/or behavioral issues before they become crises. The planning center will serve as an alternative space within the school that provides a temporary cooling down period as well as provide intervention/alternative coping strategies and resources for students.

The district faced and addressed a number of challenges in implementing the planning center model. In particular, the planning center model called for center staffing of a teacher, social worker, school psychologist, or behavior specialist with several years of experience in behavioral support programming. CMSD did not have the resources to do this. Instead the paraprofessionals who had run in-school suspension rooms were retrained and redeployed to do this work with intensive training from CMSD as well as support from clinical staff.

The PCIA's are the adults responsible for overseeing the planning centers and are expected to take an interest in the students; express the belief that they are worthwhile; encourage them; and treat them with empathy and respect, while remaining firm. The planning center is the last stop before a student is removed from the building and the first stop when a student returns from being suspended or involuntarily transferred. This may consist of a 15-minute assessment between the PCIA and the student, which is an important part of transitioning students from suspension or new enrollees to a school. By increasing acceptable behavior and decreasing unacceptable behavior, PCIA's provide supports to students to ready them to return to their classroom learning environment through use of de-escalation techniques and social problem

³ CMSD now also employs Ripple Effects, a computer-based social and emotional learning program, in its planning centers. However, this tool, which was adapted to include the PATHS language, was not in place during the 2010–11 school year.

solving; teaching replacement behaviors, social skills, and anger management; applying safety techniques and providing intensive interventions for aggressive behaviors; and working with families.

Initially, some educators in some schools were not ready for this paradigm shift or lacked the necessary capacity (e.g., knowledge), and treated the planning center as merely a renaming of in-school suspension. Principals and teachers in some other schools expressed concern with the fact that students could self-refer to the centers or sometimes came out smiling. Cleveland addressed (and is still addressing) this through leadership of the chief executive officer and chief academic officer, and the Humanware Executive Team and ongoing staff development.

IV. FINDINGS

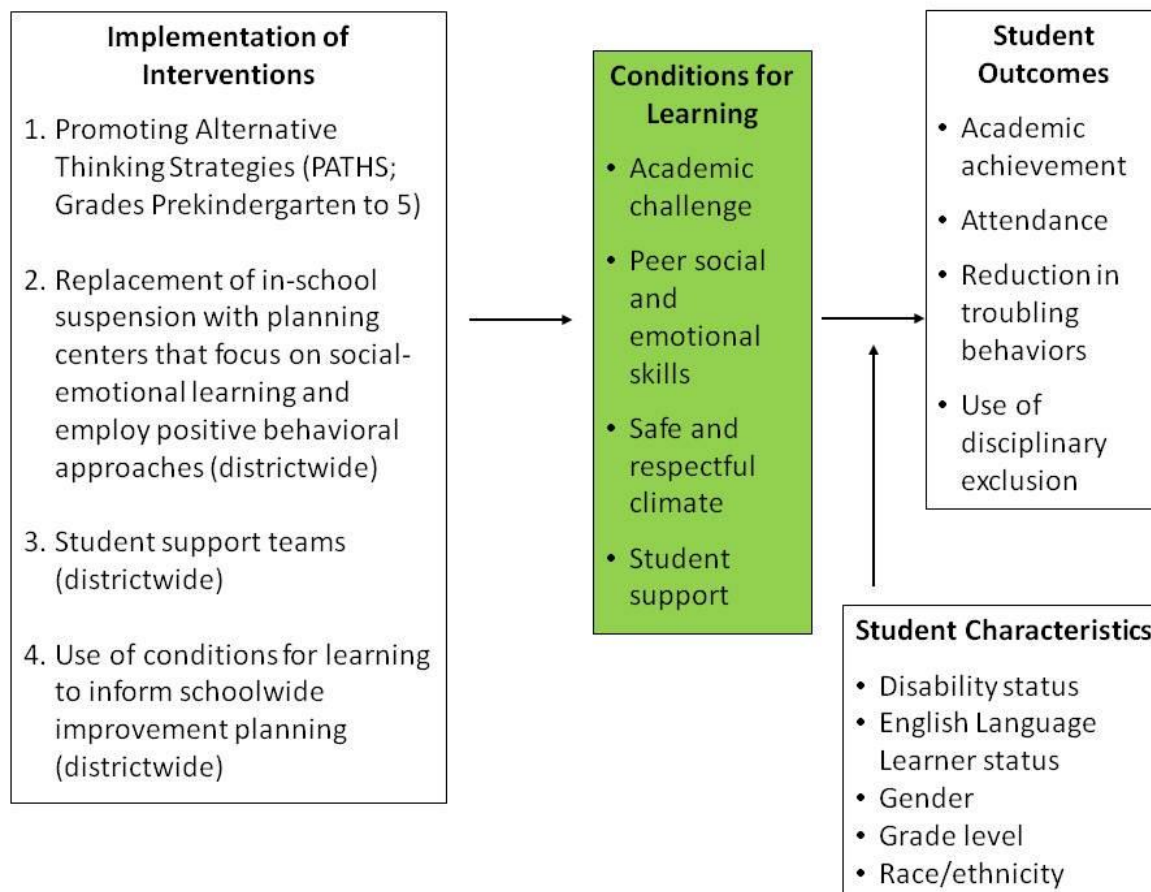
The following analyses take into account CMSD's efforts during the past four years to improve students' school experience, stemming from AIR's 2008 districtwide audit to assess the district's needs regarding student connectedness, safety, student support, and other conditions for learning. Building from baseline information on these conditions and examining implementation of the aforementioned interventions put in place following the audit, we used analyses with multiple years of data to answer the following core questions:

1. Overall, what changes in student attendance, behavior, and conditions for learning are evident between 2008 and 2011?
 - Have conditions for learning become more positive?
 - Have suspendable behaviors decreased?
2. What changes in elementary students' social and emotional competence, attention, and aggression occurred between 2010 and 2012?
3. Do these outcomes and perceptions vary by student characteristics (e.g., race/ethnicity, gender, disability status)?
4. To what extent are changes in student behavior and student reports of conditions for learning associated with the quality of implementation of three interventions: PATHS, student support teams, and planning centers?⁴

Figure 2 displays the analytic model that guided the analyses.

⁴ Districtwide data-informed school planning is not included here because all schools participated in this effort during regularly scheduled planning meetings with central office leadership.

Figure 2. Analytic Model



This section begins with outcomes related to student attendance and behavior, followed by the annual surveys of students that assess conditions for learning in CMSD schools. Next, we present findings regarding elementary student social and emotional learning. We then present data on variation of results by race, ethnicity, and gender. Finally, we examine the relationship between some of these results and the implementation quality of PATHS, student support teams, and planning centers. These data and analyses are backed by the technical notes that include tables and supplementary detail for the analyses that follow.

Student Attendance and Behavior

Foremost, if we examine attendance and suspendable offenses, Cleveland's efforts have been fruitful, although results were tempered by the impacts of deficits, mandated budget cuts, rightsizing the district, layoff, and labor-management conflict over the layoffs. For example:

- The attendance rate district-wide increased 1.5 percentage points over the 3-year period.
- The number of suspendable behavioral incidents reported by the schools in the district declined from the 2008–09 school year (when the average number of incidents per school

was 233.1) to the 2010–11 school year (when the average number of incidents per school was only 132.4).⁵

- There were statistically significant decreases in the district’s average number of reported behavioral incidents per school in each of the following categories from 2008–09 to 2010–11:⁶
 - Total incidents (233.1 in 2008–09 down to 132.4 in 2010–11).
 - Disobedient/disruptive behavior (131.8 reduced to 73.9).
 - Fighting/violence (54.5 reduced to 36.4).
 - Harassment/intimidation (12.8 reduced to 5.6).
 - Serious bodily injury (13.3 reduced to 5.8).
- Incidents involving the combination of fighting, intimidation, and injury declined. The median annual number of these types of incidents was 64 per school during the 2008–09 school year and only 38 per school two years later. We also saw changes at the extreme ends of the distribution. During this same year, the 10th percentile for the distribution of violent incidents was 11 per school and the 90th percentile was 189 per school. Two years later, during the 2010–11 school year, the schools in the 10th percentile had zero violent incidents and those in the 90th percentile had only 103 violent incidents.⁷
- Out-of-school suspensions decreased 58.8% districtwide over the 3-year period from 21,119 during the 2008–09 school year to 8,694 in the 2010–11 school year.⁸

Analyses of subscales created from the Conditions for Learning Survey safe and respectful climate scale suggest that students perceived the effects of these changes between the 2008–09 and 2010–11 school years:

- When asked if they worried about violence in their schools and whether youth are bullied and threatened in their school, students in Grades 5–8 reported lower levels of worrying about violence and less bullying of students over the three-year period under examination in this analysis. In contrast, students in Grades 2–4 and 9–12, particularly White and female students, reported higher levels worrying about violence and more bullying of students in their schools.⁹
- When asked if they felt safe in school, students in Grades 5–8, particularly Black students, reported more agreement with feeling safe over time. No significant differences were found for students in Grades 9–12.¹⁰

⁵ See Tables 1 and 21 in the Technical Notes.

⁶ See Table 21 in the Technical Notes.

⁷ See Table 2 in the Technical Notes.

⁸ During the 2009–10 school year, the number of out-of-school suspensions was 11,752. Two years of data on expulsions were available and showed little change (239 in 2008–09 and 249 in 2009–10).

⁹ See Tables 4, 5, and 8 in the Technical Notes.

¹⁰ See Tables 6 and 7 in the Technical Notes. We do not report results related to feeling safe at school for the Grade 2–4 Conditions for Learning Survey. The version of the survey for the younger students was shorter and did not include all of the items for the subscale found on the surveys for the older students. When we examined the

- When students were asked whether students in the school were prepared to fight because of arguments and insults, and whether there was a culture of putting other students down, males reported significantly lower levels of agreement with statements that students in the school were prepared to fight. This was particularly the case for males in Grades 5–8. Students in Grades 9–12 also reported lower levels of agreement with statements that students in the school were prepared to fight when faced with arguments and insults, but the reductions over time were not statistically significant.¹¹

Since CMSD’s enrollment decreased during the period, we conducted analyses to ensure that the declines in disciplinary incidents were not simply a reflection of reductions in student enrollment. We found that the distribution of school enrollment counts per school was rather steady annually over the same three-year period.¹² Also, we examined changes in enrollment and changes in disciplinary incidents for individual schools, and we did not find a pattern that suggests changes in enrollments drove changes in the prevalence of discipline problems. We were as likely to find large decreases in incidents when there were small decreases in enrollment as we were to find small decreases in the number of incidents in schools where there were large decreases in enrollment.

Student Surveys of Conditions for Learning for Grades 5–12

The Conditions for Learning Survey has been administered annually since 2008 to students in Grades 5 to 12. We analyzed these data from the 2008–09 to 2010–11 school years. Overall these conditions improved over this period for students in Grades 5 to 12. As would be expected, there was variation among schools and individual students. The following changes¹³ were evident.

Academic Challenge

- 26% of schools showed an increase in the percentage of students that reported “adequate” or “excellent” academic challenge, compared to 15% that showed a decline.

Peer Social-Emotional Climate

- 33% of schools showed improvement in the percentage of students that reported “adequate” or “excellent” peer social and emotional competence, compared to 28% that showed decreases.

Safe and Respectful Climate

- 44% of schools reported an increase in the percentage of students that reported “adequate” or “excellent” conditions on this scale, while only 23% reported a decline. This is particularly evident for the students in Grades 5–8.

reliability for the subscale with some of the items related to feeling safe at school, we calculated a Cronbach’s Alpha of only 0.55, so we decided to exclude this subscale from our analyses.

¹¹ See Tables 7 and 10 in the Technical Notes. We do not report results related to being prepared to fight because of arguments or insults for the Grade 2–4 Conditions for Learning Survey. The survey version for younger students was shorter and did not include the items for the subscale.

¹² See Table 3.

¹³ Changes are noted if there was difference of at least 5 percentage points.

Student Support

- 59% of schools showed an increase in the percentage of students that reported “adequate” or “excellent” student support, compared to 9% that showed a decline.

Conditions for learning also appear to have an important relationship with academics and attendance. We found that higher survey scores were associated with higher results on the Ohio Department of Education Performance Index (PI)¹⁴ for schools during the 2008–09, 2009–10, and 2010–11 school years. A multi-linear regression examining the relationship between the survey data for all four scales together (Challenge, Safe and Respectful Climate, Peer Social-Emotional Climate, Student Support) and the PI revealed that survey scores accounted for approximately 62% of the variance in the high school PI scores. Combined survey scores also accounted for approximately 62% of the variance in high school attendance. At the K–8 level, the conditions for learning scores accounted for approximately 30% of the variance in PI scores, over the same time period. When attendance was included in the model, the combination of conditions for learning scores and attendance accounted for 69% of the variance in PI scores at the high school level and for 46% of the variance in PI scores at the K–8 level. Taking into account attendance in addition to survey scores improved our ability to predict scores on the PI. Furthermore, we were able to predict PI scores even more effectively at the high school level than we were at the K–8 level.

Findings for Elementary Students’ Social Competence

An evaluation of Promoting Alternative Thinking Strategies (PATHS) in CMSD occurred during the 2010–11 and 2011–12 school years (Faria, Kendziora, Brown, & Osher, 2012). Teachers in Prekindergarten through Grade 5 were asked to complete surveys in the fall and spring of the 2010–11 and 2011–12 school years. These surveys asked teachers to rate the social and emotional competence, attention, and aggression of a random sample of students in their classrooms (6 students in the first year, 7 students in the second). Spring surveys asked additional questions about PATHS implementation, as well as satisfaction with training and overall teacher morale. Survey administration procedures varied (details are available in the Faria et al. 2012 report). Response rates for the survey administrations were 24% and 42% in 2010–11 and 75% for each administration in 2011–12.

The evaluation used different measures of change from fall to spring in 2010–11 and in 2011–12. In Year 1, the aim was to produce a classroom-level estimate of outcome variables using six randomly selected students; the investigators selected independent samples of students for the fall and spring ratings and computed classroom-level estimates.¹⁵ In Year 2, the investigators used a multi-level model to measure student change accounting for the clustering within schools.

In 2010–11, evaluators observed significant improvement from fall to spring for social competence and attention, but did not see a significant change in aggression. In 2011–12, these

¹⁴The PI provides an overall indication of how well students perform on the Ohio Achievement Tests in Grades 3 through 8 and the Ohio Graduation Test in Grade 10.

¹⁵Using this method, the improvements for social competence and attention were both statistically significant (0.11 and 0.08 standard deviation units, respectively), but the increase in aggression (0.06 units) was not significant.

findings were replicated, but in addition they saw a significant increase in aggression between fall and spring. The findings for teacher-rated aggression were consistent with results from prior studies documenting a normative increase from fall to spring. However, in classrooms with better PATHS implementation, there was a smaller increase in aggression.

Subgroup Results

Analyses of subscales created from the Conditions for Learning Survey's Safe and Respectful Climate scale found significant difference for some student subgroups, between the 2008–09 and 2010–11 school years:

- When asked if they worried about violence in their schools and whether youth are bullied and threatened in their school, students reported less concern over time with significant decreases among students in Grades 5–8, particularly male, Latino, and White students.¹⁶ Significant increases (representing more concern over time) were evident among students in Grades 2–5 and high school students, particularly female and White students.¹⁷
- When asked if they felt safe in school, students reported more agreement with feeling safe over time, with significantly higher levels of agreement for male, female, and Black students. There were significant increases among male, female, and Black students in Grades 5–8, but no significant differences at the high school level.¹⁸
- When students were asked whether students in the school were prepared to fight because of arguments and insults, and whether there was a culture of putting other students down, males in Grades 5–8 reported significantly lower levels of agreement with statements that students in the school were prepared to fight.¹⁹

Analyses of the most currently available Office for Civil Rights disciplinary data provide more specific details about behavioral outcomes and information on how student subgroups experienced exclusionary school discipline during the 2009–10 school year—a halfway point for most of our analyses. These data, which a scatter plot shows to be consistent with findings from the other data we analyzed (see section C of the Technical Notes), suggest the continuation of disparities in the implementation of exclusionary discipline for Black or Latino students. As we move from less serious to more serious responses (i.e., in-school suspension, only one out-of-school suspension, more than one out-of-school suspension), the overrepresentation of Black and Latino students increases as the level of severity of response increases. These data, which are presented in Tables 11–14 in the Technical Notes, show disparities in exclusionary school discipline across racial and ethnic groups as well as difference between male and female students. Three findings are most important here:

- As we move from less serious to more serious responses the overrepresentation of Black and Latino students increases as the level of severity of response increases (i.e., from in-school suspension to only one out-of-school suspension, more than one out-of-school suspension, and expulsion).

¹⁶ There were no significant decreases for Black students.

¹⁷ See Tables 4, 5, and 8 in the Technical Notes.

¹⁸ See Tables 6 and 9 in the Technical Notes.

¹⁹ See Tables 7 and 10 in the Technical Notes.

- The greatest disparities (in descending order and relative to White students in the grouping) were for Black females with disabilities, Black females without disabilities, Black males with disabilities, Black males without disabilities, Latinas with disabilities, Latino males with disabilities, and Latino males without disabilities.
- Among Black students with disabilities, the relative risk for males was still greater than the relative risk for females. In most cases, this was also true for Black students with disabilities and Latino students with or without disabilities.

Although these disparities are limited to the 2009–10 school year, they suggest a problem that other studies have also identified. Specifically, race-neutral processes that reduce disciplinary incidents may reduce base rates for disciplinary actions and the harms caused by suspension and expulsion, but not disparities in discipline. Skiba, Horner, and colleagues' study of PBIS (2011) provides an example of this, as do studies of disparities in special education placement and other areas that may be affected by implicit bias and lack of understanding of behaviors grounded in a student's cultural background (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; Osher, et al, 2012; Pearson, Dovidio, & Gaertner, 2009).

Implementation Quality

How did variable implementation of the interventions vary with their intended outcomes? Implementation quality is the key to determining whether evidence-based interventions improve outcomes for students. Successful implementation depends not only on effective intervention models with demonstrated positive outcomes, but also available technical support, including training, coaching, and monitoring (Domitrovich & Greenberg, 2000; Durlak et al., 2011; Elliott & Mihalic, 2004; Hall & Hord, 2011; Fox, Gottfredson, Kumpfer, & Beatty, 2004). Change is hard, and most practitioners (e.g., teachers) do not commit to a new approach until they master it and see and tangibly experience the outcomes. This is not easy when they lack the time or support to make the new approach routine. Support includes leadership commitment, which was available in CMSD at the highest levels, but not always from principals. This support must also address factors that interfere with change, timely access to reliable and effective training and ongoing coaching, quality improvement and assurance protocols and data to collect feedback for course correction along the way, and reinforcement from colleagues and students (Wandersman, Chien, & Katz, 2012). CMSD has moved forward in developing these components, but due to organizational culture, the organizational structure, and economic constraints, they have only developed slowly.

It is not surprising that implementation quality affected results, so it is important to understand implementation quality when assessing intervention impact. As part of its quality improvement efforts prior to AAP meetings, CMSD has asked principals to self-report their school's progress on implementing each of these interventions (low, medium, high). Using these data from the 2011–12 school year, we found an association between the decline in the number of incidents and the quality of implementation of the Humanware strategies. The threshold appears to be with those schools rated by their principals as “medium” or “high” implementation of Promoting Alternative Thinking Strategies (PATHS), student support teams, and planning centers. For schools rated as “medium” or “high” implementation, we found statistically significant decreases from 2008–09 to 2010–11 in the number of behavioral incidents in each of five categories: (1)

total incidents, (2) disobedient/disruptive behavior, (3) fighting/violence, (4) harassment/intimidation, and (5) serious bodily injury. From 2008–09 to 2010–11, changes in disciplinary incidents in schools with “medium” or “high” implementation of these three interventions as of spring 2012 included the following:²⁰

- For “medium” or “high” PATHS implementation schools, the total number of disciplinary incidents decreased, on average, 35.9%.²¹
- For “medium” or “high” student support team implementation schools, the total number of disciplinary incidents decreased, on average, 49.1%.²²
- For “medium” or “high” planning centers implementation schools in spring 2012, the total number of disciplinary incidents decreased, on average, 51.4%.²³

Similarly, when students were asked about their perception about whether the school is safe, we found that, they reported increasingly higher perceptions of safety, and that pattern was particularly evident where these three interventions were rated higher in terms of the quality of their implementation. Furthermore, on the Conditions for Learning Survey scale where students indicated whether peers in their school are often threatened, bullied, and teased, the lowest ratings (i.e., more disagreement with the statements which indicate positive results) occurred where planning centers implementation was rated “high,” where student support team implementation was rated “medium” or “high,” and where PATHS implementation was rated “medium” or “high.” As expected, we did not find these same results when the implementation of these interventions was rated “low.”

Additional information on the relationship between implementation and outcomes comes from an evaluation of PATHS (Faria et al., 2012, described earlier). Analyses that linked implementation to student outcomes consistently found a positive and strong relationship between higher levels of implementation (satisfaction with training, satisfaction with coaching, overall levels of implementation, and teacher morale) and students’ social and emotional competence and attention.

Satisfaction with training was significantly related to student social competence, attention, and aggression in both years; satisfaction with coaching (applicable in 2010–11 only) was significantly associated with both social competence and attention. An overall measure of implementation was significantly associated with social competence and attention in both years, but it was also related to aggression in 2011–12. In 2011–12, as teacher-rated implementation of

²⁰ There is no statistically significant change in the numbers of incidents over the three-year period when the quality of implementation is rated “low” in each of the three interventions.

²¹ See Tables 15, 18, 22, and 23 in the Technical Notes. Enrollment increased by 4.2% in these schools over the same period. In schools rated as “low” PATHS implementation, the decrease in disciplinary incidents was 31.6% with almost no change in enrollment.

²² See also Tables 16, 19, 24, and 25 in the Technical Notes. Enrollment increased by 0.2% in these schools over the same period. In schools rated as “low” student support team implementation, disciplinary incidents decreased by 26.6% with a 5.9% increase in enrollment.

²³ See also Tables 17, 20, 26, and 27 in the Technical Notes. Enrollment increased by 3.0% in these schools over the same period. In schools rated as “low” planning centers implementation, disciplinary incidents decreased by 15.6% with a 2.0% decrease in enrollment.

PATHS increased, ratings of students' aggression decreased. Teacher morale was significantly associated with all three student outcomes in both years.

Dosage (number of PATHS lessons delivered) was related to students' social competence in 2010–11, and both social competence and attention in 2011–12. The relatively weaker relationship between dosage and student outcomes compared to the relationship of satisfaction and student outcomes was consistent with prior findings (Conduct Problems Prevention Research Group, 1999), in which the authors suggested that it may be less crucial how *many* lessons are taught than the *quality* with which they were delivered

V. RECOMMENDATIONS

It is important to do the right things in the right way. Efficacious public policy should be rooted in practice that is both evidence based, cost effective, and implemented with quality. It is valuable to have a longer-term view that considers the prevention-related benefits of short-term costs (Osher, Morrison, & Bailey, 2003; Quinn & Poirier, 2004). Based on the findings of this study, as well as lessons learned from the larger body of research and professional literature and our work with school districts and schools, we make the following six policy recommendations. We propose that policy mandate, support, and incentivize—at both the state, school district, and school levels—efforts to address the following recommendations.

It is important to immediately eliminate exclusionary discipline. The conditions contributing to exclusionary discipline must be transformed with a sustained, multi-year effort (Johnson, Kendziora, & Osher, 2012). Such efforts should begin with an understanding that a culture of change, unlike “quick fixes” like metal detectors, requires an extended period of time to engage stakeholders, cultivate their buy-in, and develop an effective plan.

Recommendation 1: Assess Factors Contributing to Disparities in School Safety and Discipline. There are ecological as well as individual warning signs of school violence (Osher et al. 2004). Conducting and effectively using audits to identify assets as well as areas of need and factors contributing to poor discipline and violence can facilitate more efficient use of public resources. This can also potentially identify causes of discipline-related disparities (e.g., the most recent U.S. Department of Education Race to the Top grants require school districts to conduct root cause analyses of these disparities). Audits should include an external, independent perspective and a sound methodology. The CMSD audit (Osher et al., 2008), which was the basis for CMSD's Humanware efforts, provides an example of this.

Recommendation 2: Expand Collection and Use of Data on Non-Academic Conditions in Schools. Data on school conditions for learning—challenge, physical and emotional safety, student social and emotional skills, student support—can effectively facilitate continuous improvement, performance management, and accountability. Effective use of data from valid, reliable, and properly administered student surveys, such as the instrument CMSD has used, should be infused into the culture of districts and schools. These data should be examined to understand general conditions in districts and schools as well as disaggregated by student demographic subgroups to support data-informed decisions about interventions and

strategies to address disparities and identified areas of need. Doing this on a voluntary basis was included in a 2011 Senate bill for the reauthorization of the Elementary and Secondary Education Act. Importantly, school staff should be equipped with the tools, time, training, and support to effectively use data on non-academic conditions to plan, monitor, and refine interventions. The Federally supported National Center on Safe and Supportive Learning Environments has archived webinars on the use of school climate data. The logic of this approach is also described in related literature (e.g., Osher et al., 2004; Osher & Kendziora, 2010; Wandersman, Chien, & Katz, 2012).

As part of this effort, it is essential to collect and disaggregate data for student populations known to experience disparities and disproportionalities. Particular groups of students may experience these disparities so it is important that consider these groups as part of related efforts to improve conditions for learning and discipline. This includes student demographic characteristics including race/ethnicity, English Language Learner status, disability status, and poverty. Furthermore, although we did not have data on students who are lesbian, gay, bisexual, and transgender (LGBT), research increasingly documents the challenges they experience in some school settings due to rejection, bias, and abuse related to their sexual orientation and gender identity/expression (Poirier, 2012) as well as disparities in discipline due to bias because of their LGBT identity (Majd, Marksamer, & Reyes, 2009). This may be especially problematic for LGBT students of color due given what we know about the discipline-related disparities that Black and Latino students encounter. It is critical that policymakers and educators actively engage these voices and perspectives in efforts to improve school safety and discipline, as well as collect and disaggregate data on these populations.

Recommendation 3: Apply Tiered Approaches to Prevention and Addressing Mental Health Challenges, Including Those Related to Trauma. Trauma and mental health challenges and disorders can contribute to as well as be exacerbated by academic and behavioral problems. Tiered approaches to preventing and addressing mental health disorders can ensure that more concentrated supports are delivered to students who need them, while also providing a foundation that minimizes problems and makes early intervention easier. Information on the theoretical background for this (e.g., O’Connell, Boat, & Warner, 2009; Weisz, Sandler, Durlak, & Anton, 2006) and models for implementing this approach (see Osher, et al., 2004) are readily available. Interventions should be tiered, not students, who have strengths as well as needs, and interventions should both build strengths as well as address needs.

Recommendation 4: Implement Evidence-Based Social and Emotional Learning. Self-discipline and prosocial habits are critical to creating safe learning environments (Osher et al., 2010) and effective social and emotional learning (SEL) can promote social competence while reducing antisocial behavior (Durlak et al., 2011). Districts can address discipline-related concerns more proactively by building adult and student social and emotional competence through training and effective implementation of evidenced-based SEL. This may include SEL standards as in the case of Illinois (Gordon, Ji, Mulhall, Shaw, & Weissberg, 2011) evidenced based SEL programs that can be found in the Collaborative for Academic, Social, and Emotional Learning 2013 Guide to SEL Programs (CASEL, 2012), and systemic SEL programming as being implemented by Anchorage, Austin, Chicago, Cleveland, Nashville, Oakland, Sacramento, and

Washoe as part of the Collaborating Districts Initiative (<http://casel.org/collaborating-districts-initiative/>).

Recommendation 5: Broaden Investment in “Humanware” Student Support

Activities. Provide incentives for Humanware investment that are equivalent to incentives for investment in hardware and policing. Federal policy has supported hiring police in schools and investments in hardware. It has not done the same for Humanware, other than through competitive grant programs. Cleveland was able to spend \$2.5 million on metal detectors from its \$3.3 million in state capital improvement funds. Humanware investments could be similarly incentivized through social investment bonds, for example.

Recommendation 6: Support Development of Individual and Organizational Capacities to Reduce Disparities while Building Safe, Orderly Schools with Strong Conditions for Learning.

Low-quality implementation and cultural disconnects between students, families, and educators contribute to disparities. There is an increasing body of research that suggest the importance of implementation quality and capacity (Durlak & DuPre, 2008; Myers, Durlak, & Wandersman, 2012) as well as of educator cultural competence (Osher, Cartledge, Oswald, Artiles, & Coutinho, 2004; Osher et al, 2012; Poirier, 2012). Policy and practice should support development of individual and organizational capacities to reduce disparities while building safe, orderly schools that have strong conditions for learning.

VI. CONCLUSION

Children and youth require safe and supportive schools and communities if they are to succeed in school and thrive. These needs are particularly great for children who struggle with the adversities of poverty (Kendziora & Osher, 2009). The data presented here suggest that Cleveland is starting to create those conditions for its students, the majority of whom are students of color. For example, when students were asked about their perception about whether the school is safe, we find that during this period, they are reporting increasingly higher perceptions of safety, and this was particularly evident for a group who are usually at risk here, youth in the middle school grades.

Schools with high levels of student social-emotional and other needs may lack the organizational efficacy necessary to identify the right programs and use them efficiently. Educators and community members in many of these schools and districts often believe that the challenges they face are so hard that a proactive preventive approach cannot take place in their school or district. Cleveland provides an example of what else is possible, even in hard times, and even under less than perfect conditions for implementing student centered policies, which reduce school removal, drop out, and the pipeline to prison (Gavazzi, Russell, & Khurana, 2009). Fortunately, the promise for Cleveland is growing. The chief academic officer who led the Humanware efforts is now the system’s chief executive officer. He, the mayor, and the Cleveland Teachers Union president have succeeded in having the voters pass the first tax levy for education in 17 years, and Cleveland has secured support from the NoVo Foundation to support its Humanware efforts.

Cleveland continues to move forward in strengthening each of the four initiatives that we discussed. For example, Cleveland is now surveying students about conditions for learning three times a year so that its school planning teams can use the disaggregated data for continuous quality improvement. Similarly, its Humanware efforts are being extended through implementation of social and emotional learning standards; incorporation of a student-driven, evidenced-based computer social and emotional learning program (Ripple Effects) in the planning centers; and implementation of class meetings in high schools districtwide.

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TECHNICAL NOTES

A. Disciplinary Incidents Across CMSD Schools

Data were provided from the Ohio Department of Education for each school in the Cleveland Metropolitan School District (CMSD). These data included the numbers of disciplinary incidents for which the students may have received out-of-school suspensions. We received data for three consecutive school years: 2008–09, 2009–10, and 2010–11. The data do not provide clarification as to whether the students were actually suspended in each incident, but we are able to track the annual (for each academic year) number of incidents within each school for the following categories:

- Disobedient/disruptive
- Fighting/violence
- Harassment/intimidation
- Serious bodily injury
- Truancy
- Vandalism

The number of truancy and vandalism incidents across the different schools was relatively small, so they are included among the counts of total disciplinary incidents, but are not maintained as separate counts for the purposes of our analyses. Data are included in our analyses for 81 CMSD schools (out of a total of 100 schools) for which we had data on disciplinary incidents for the 2008–09 school year. Percentiles from the distribution of enrollment counts for the same period are also included in Table 3.

Table 1. Distribution of Total Disciplinary Incident Reports

Year	N	Percentiles						
		5	10	25	50	75	90	95
2008–09	81	14	27	52	123	259	458	1,059
2009–10	68	13	26	43	86	177	302	663
2010–11	56	12	16	40	76	165	220	406

Table 2. Distribution of Total Reports of Fighting, Intimidation, and Serious Bodily Injury

Year	N	Percentiles						
		5	10	25	50	75	90	95
2008–09	81	0	11	21	64	111	189	253
2009–10	68	0	12	21	45	92	113	154
2010–11	56	0	0	16	38	65	103	136

Table 3. Distribution of Enrollment Counts

Year	N	Percentiles						
		5	10	25	50	75	90	95
2008–09	86	129	198	308	409	552	785	1,140
2009–10	89	173	226	300	374	500	737	963
2010–11	95	140	192	276	386	487	712	975

B. Conditions for Learning Survey Subscale Analyses

Students were surveyed regarding the conditions for learning within their schools. Using factor analysis, we created subscales from items identified from the larger survey that reflected three characteristics of the school setting: whether students in that school are often threatened, bullied or teased; whether the students reported feeling safe in and around the school building; and whether students in the school were likely to resort to fighting and verbal aggression in response to conflicts. We assessed the reliability of each of the new scales. Here we report Cronbach’s alpha for the scale using data from the most recent year (alpha reliabilities are consistent in previous years and are not reported in this paper). In Grades 2–4, where there are fewer items on the survey instrument, we report only results for the scale assessing whether students in the school are often threatened, bullied, or teased.

In addition, the following results include bivariate analyses assessing whether there is improvement in these data over a four-year period in each of the three scales within gender and racial subgroups. For these analyses, we have data for each of four consecutive school years: 2008–09, 2009–10, 2010–11, and 2011–12. We use bivariate correlations to assess whether the trend is in the direction we would expect if the students were feeling safer within the school setting over time. So for instance, as higher scores on the scale “Threatened, Bullied, and Teased” reflect higher degrees of worrying or concern on the part of the students, over time we would expect to see a reduction in scores if the school environment was perceived to be improving or becoming safer. Such a trend would be reflected in a negative correlation.

B1. Results for Grades 2–4

Scale 1: Threatened, Bullied, and Teased (Cronbach's Alpha: 0.69)

Items:

- Students at my school are often bullied.
- Students at my school are teased, picked on, made fun of, or called names.

Table 4. Correlation of Scale Score to Years since Implementation within Gender and Race Subgroups

	Male	Female	Black	Hispanic	White
Trend 2009–12	0.18*	0.11*	0.09	0.13	0.18*

Note: Numbers reported in table are bivariate correlations for the subsamples defined by gender and race.

* Statistically significant at the 0.05 level.

B2. Results for Grades 5–8

Scale 1: Threatened, Bullied, and Teased (Cronbach's Alpha: 0.79)

Items:

- I worry about crime and violence in school.
- Students at this school are often bullied.
- Students at this school are often threatened.
- Students at this school are often teased or picked on.
- Students at this school are often bullied because of certain characteristics (for example, their race, religion, or weight).

Table 5. Correlation of Scale Score to Years since Implementation within Gender and Race Subgroups

	Male	Female	Black	Hispanic	White
Trend 2009–12	-0.14*	-0.04	-0.06	-0.14*	-0.11*

Note: Numbers reported in table are bivariate correlations for the subsamples defined by gender and race.
 * Statistically significant at the 0.05 level.

Scale 2: Feel Safe at School (Cronbach's Alpha: 0.68)

Items:

- How safe do you feel in the hallways and bathrooms of the school?
- How safe do you feel in your classes?

Table 6. Correlation of Scale Score to Years since Implementation within Gender and Race Subgroups

	Male	Female	Black	Hispanic	White
Trend 2009–12	0.06*	0.06*	0.12*	-0.01	0.07

Note: Numbers reported in table are bivariate correlations for the subsamples defined by gender and race.
 * Statistically significant at the 0.05 level.

Scale 3: Prepared to Fight (Cronbach's Alpha: 0.71)

Items:

- Most students in my school like to put others down.
- Most students in my school get into arguments when they disagree with people.
- Most students in my school think it's OK to fight if someone insults them.
- Most students in my school say mean things to other students when they think the other students deserve it.

Table 7. Correlation of Scale Score to Years since Implementation within Gender and Race Subgroups

	Male	Female	Black	Hispanic	White
Trend 2009–12	-0.06*	0.03	0.02	-0.05	-0.01

Note: Numbers reported in table are bivariate correlations for the subsamples defined by gender and race.
 * Statistically significant at the 0.05 level.

B3. Results for Grades 9–12

Scale 1: Threatened, Bullied, and Teased (Cronbach's Alpha: 0.86)

Items:

- I worry about crime and violence in school.
- Students at this school are often bullied.
- Students at this school are often threatened.
- Students at this school are often teased or picked on.
- Students at this school are often bullied because of certain characteristics (for example, their race, religion, or weight).

Table 8. Correlation of Scale Score to Years since Implementation within Gender and Race Subgroups

	Male	Female	Black	Hispanic	White
Trend 2009–12	-0.00	0.12*	-0.00	0.12	0.14*

Note: Numbers reported in table are bivariate correlations for the subsamples defined by gender and race.

* Statistically significant at the 0.05 level.

Scale 2: Feel Safe at School (Cronbach's Alpha: 0.67)

Items:

- How safe do you feel in the hallways and bathrooms of the school?
- How safe do you feel in your classes?

Table 9. Correlation of Scale Score to Years since Implementation within Gender and Race Subgroups

	Male	Female	Black	Hispanic	White
Trend 2009–12	0.03	-0.01	-0.04	0.03	0.00

Note: Numbers reported in table are bivariate correlations for the subsamples defined by gender and race. No statistically significant results.

Scale 3: Prepared to Fight (Cronbach's Alpha: 0.75)

Items:

- Most students in my school like to put others down.
- Most students in my school get into arguments when they disagree with people.
- Most students in my school think it's OK to fight if someone insults them.
- Most students in my school say mean things to other students when they think the other students deserve it.

Table 10. Correlation of Scale Score to Years since Implementation within Gender and Race Subgroups

	Male	Female	Black	Hispanic	White
Trend 2009–12	-0.05	-0.04	-0.08	0.03	-0.04

Note: Numbers reported in table are bivariate correlations for the subsamples defined by gender and race. No statistically significant results.

C. Disciplinary Responses by Student Characteristic

Data were downloaded from the U.S. Department of Education, Office of Civil Rights website for the 2009–10 school year for the CMSD. These data provided counts by school for suspensions (in school and out of school) and expulsions. For each incident, we also know the race, gender, and disability status of the youth. For our analyses, we calculated the relative rates for Black and Hispanic students compared to White students. These rates are examined within subgroups by gender and disability status. The results are presented in Tables 24 to 27. The following scatter plot displays behavioral incidents reported by CMSD cross-classified with disciplinary outcomes for the 2009–10 school year. Each point in the plot represents the number of reported behavioral incidents for a particular school and the number of suspensions and expulsions for the same school.

Scatter Plot of Behavioral Incidents from CMSD and Disciplinary Outcomes from OCR, 2009–10

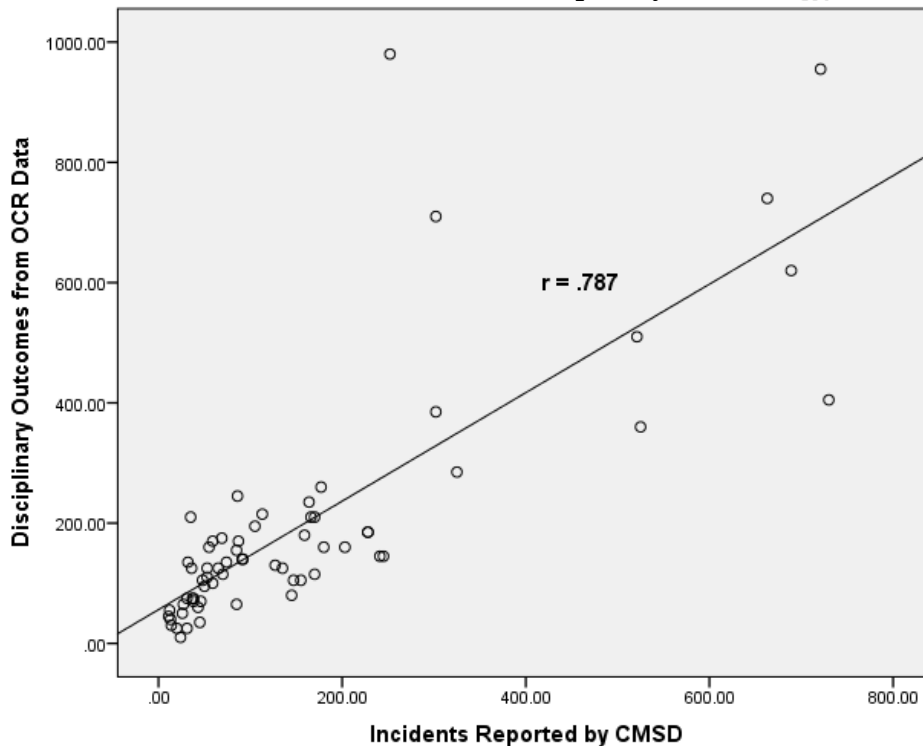


Table 11. Disciplinary Responses to Male Students with Disabilities, CMSD, 2009–10

Type of Disciplinary Response	Black		Hispanic		White		Relative Rate for Blacks ^b	Relative Rate for Hispanics ^b
	Number	Rate ^a	Number	Rate ^a	Number	Rate ^a		
Students receiving one or more in-school suspensions	985	50.8	145	42.2	175	41.9	1.2	1.0
Students receiving only one out-of-school suspension	595	30.7	60	17.5	45	10.8	2.9*	1.6*
Students receiving more than one out-of-school suspension	435	22.4	40	11.7	25	6.0	3.8*	2.0*
Expulsions under zero-tolerance policies	0	-	0	-	0	-	-	-
Expulsions without educational services	0	-	0	-	0	-	-	-

^a Number per 1,000 students; ^b Relative to rate for White students.

* Statistically significant at the 0.05 level.

Source: Office for Civil Rights, U.S. Department of Education, retrieved from: <http://www.ed.gov/ocr>.

Table 12. Disciplinary Responses to Male Students without Disabilities, CMSD, 2009–10

Type of Disciplinary Response	Black		Hispanic		White		Relative Rate for Blacks ^b	Relative Rate for Hispanics ^b
	Number	Rate ^a	Number	Rate ^a	Number	Rate ^a		
Students receiving one or more in-school suspensions	2,505	129.2	420	122.3	415	99.4	1.3*	1.2*
Students receiving only one out-of-school suspension	1,370	70.7	160	46.6	145	34.7	2.0*	1.3*
Students receiving more than one out-of-school suspension	990	51.1	80	23.3	65	15.6	3.3*	1.5*
Expulsions under zero-tolerance policies	5	0.3	0	-	0	-	-	-
Expulsions without educational services	135	7.0	5	1.5	5	1.2	5.8*	1.2

^a Number per 1,000 students; ^b Relative to rate for White students.

* Statistically significant at the 0.05 level.

Source: Office of Civil Rights, U.S. Department of Education, retrieved from: <http://www.ed.gov/ocr>.

Table 13. Disciplinary Responses to Female Students with Disabilities, CMSD, 2009–10

Type of Disciplinary Response	Black		Hispanic		White		Relative Rate for Blacks ^b	Relative Rate for Hispanics ^b
	Number	Rate ^a	Number	Rate ^a	Number	Rate ^a		
Students receiving one or more in-school suspensions	435	23.5	60	19.5	75	18.9	1.2	1.0
Students receiving only one out-of-school suspension	225	12.2	15	4.9	15	3.8	3.2*	1.3
Students receiving more than one out-of-school suspension	95	5.1	10	3.3	5	1.3	4.1*	2.6
Expulsions under zero-tolerance policies	0	-	0	-	0	-	-	-
Expulsions without educational services	0	-	0	-	0	-	-	-

^a Number per 1,000 students; ^b Relative to rate for White students.

* Statistically significant at the 0.05 level.

Source: Office for Civil Rights, U.S. Department of Education, retrieved from: <http://www.ed.gov/ocr>.

Table 14. Disciplinary Responses to Female Students without Disabilities, CMSD, 2009–10

Type of Disciplinary Response	Black		Hispanic		White		Relative Rate for Blacks ^b	Relative Rate for Hispanics ^b
	Number	Rate ^a	Number	Rate ^a	Number	Rate ^a		
Students receiving one or more in-school suspensions	2,230	120.6	350	114.0	305	76.9	1.6*	1.5*
Students receiving only one out-of-school suspension	1,130	61.1	90	29.3	85	21.4	2.9*	1.4*
Students receiving more than one out-of-school suspension	540	29.2	50	16.3	25	6.3	4.6*	2.6*
Expulsions under zero-tolerance policies	0	-	0	-	0	-	-	-
Expulsions without educational services	55	3.0	0	-	0	-	-	-

^a Number per 1,000 students; ^b Relative to rate for White students.

* Statistically significant at the 0.05 level.

Source: Office for Civil Rights, U.S. Department of Education, retrieved from: <http://www.ed.gov/ocr>.

D. Disciplinary Incidents by Intervention Level of Implementation Across CMSD Schools

School administrators reported on the progress they were making in implementing the interventions in their schools beginning in the 2011–12 school year. For three of the interventions—PATHS, student support teams, and planning centers—reports from school administrators led to ratings on the quality of implementation for each intervention. Implementation quality was rated “low,” “medium,” or “high.”

Table 15. Distribution of Total Disciplinary Incident Reports, by Level of PATHS Implementation as Reported During the 2011–12 School Year

Year	Level of PATHS Implementation	N	Percentiles						
			5	10	25	50	75	90	95
2008–09	Low	17	11	52	92	223	259	332	333
	Medium to High	31	14	33	51	99	162	273	368
2009–10	Low	13	31	31	59	170	203	245	245
	Medium to High	27	12	36	43	69	127	159	166
2010–11	Low	14	29	29	90	99	191	220	220
	Medium to High	24	11	11	38	72	148	181	189

Table 16. Distribution of Total Disciplinary Incident Reports, by Level of Student Support Team Implementation as Reported During the 2011–12 School Year

Year	Level of Implementation of Student Support Teams	N	Percentiles						
			5	10	25	50	75	90	95
2008–09	Low	9	12	12	37	259	368	411	458
	Medium to High	39	14	43	70	122	214	273	332
2009–10	Low	8	38	38	50	155	195	241	325
	Medium to High	32	14	31	43	74	135	177	203
2010–11	Low	8	52	52	93	154	189	219	220
	Medium to High	30	11	12	38	72	148	181	194

Table 17. Distribution of Total Disciplinary Incident Reports, by Level of Planning Centers Implementation as Reported During the 2011–12 School Year

Year	Level of Implementation of Planning Centers	N	Percentiles						
			5	10	25	50	75	90	95
2008–09	Low	16	14	51	61	123	258	267	333
	Medium to High	32	12	33	76	122	223	332	368
2009–10	Low	11	38	38	50	113	164	203	203
	Medium to High	29	12	31	38	74	155	177	245
2010–11	Low	11	12	12	38	154	189	220	220
	Medium to High	27	11	12	52	93	112	176	194

Table 18. Distribution of Fighting, Intimidation, and Serious Bodily Injury, by Level of PATHS Implementation as Reported During the 2011–12 School Year

Year	Level of PATHS Implementation	N	Percentiles						
			5	10	25	50	75	90	95
2008–09	Low	17	11	15	31	72	122	163	189
	Medium to High	31	10	14	22	61	90	138	151
2009–10	Low	13	0	0	21	83	113	143	143
	Medium to High	27	12	13	22	31	58	93	100
2010–11	Low	14	0	0	27	55	67	111	111
	Medium to High	24	0	0	19	35	70	103	108

Table 19. Distribution of Fighting, Intimidation, and Serious Bodily Injury, by Level of Student Support Team Implementation as Reported During the 2011–12 School Year

Year	Level of Student Support Team Implementation	N	Percentiles						
			5	10	25	50	75	90	95
2008–09	Low	9	0	0	16	111	151	195	217
	Medium to High	39	11	15	31	63	86	138	163
2009–10	Low	8	13	13	29	83	98	105	172
	Medium to High	32	12	12	21	31	64	100	113
2010–11	Low	8	13	13	51	91	108	136	154
	Medium to High	30	0	0	19	35	59	74	82

Table 20. Distribution of Fighting, Intimidation, and Serious Bodily Injury, by Level of Planning Centers Implementation as Reported During the 2011–12 School Year

Year	Level of Implementation of Planning Centers	N	Percentiles						
			5	10	25	50	75	90	95
2008–09	Low	16	14	15	31	69	101	111	122
	Medium to High	32	10	11	25	61	113	163	189
2009–10	Low	11	22	22	26	48	83	100	100
	Medium to High	29	0	12	16	39	87	105	143
2010–11	Low	11	12	12	19	46	103	111	111
	Medium to High	27	0	0	21	44	61	77	91

Table 21. Differences in Mean Levels of Disciplinary Incident Reports from 2008–09 to 2010–11

Type of Incident	Year	N	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Fighting/Violence	2008–09	81	54.5	45.1	2.80	135.0	0.01
	2010–11	56	36.4	30.7			
Disobedient/Disruptive Behavior	2008–09	81	131.8	215.3	2.13	119.5	0.04
	2010–11	56	73.9	98.0			
Harassment/Intimidation	2008–09	81	12.8	19.1	2.91	124.8	0.00
	2010–11	56	5.6	9.6			
Serious Bodily Injury	2008–09	81	13.3	25.2	2.30	125.5	0.02
	2010–11	56	5.8	12.8			
Total Incidents	2008–09	81	233.1	321.7	2.43	123.7	0.02
	2010–11	56	132.4	158.1			

Table 22. Differences in Mean Levels of Disciplinary Incident Reports from 2008–09 to 2010–11, Schools with MEDIUM or HIGH Implementation of PATHS as Reported During the 2011–12 School Year

Type of Incident	Year	N	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Fighting/Violence	2008–09	31	54.4	46.6	1.20	53.0	0.24
	2010–11	24	41.3	30.3			
Disobedient/Disruptive Behavior	2008–09	31	69.5	60.8	2.13	46.6	0.04
	2010–11	24	42.6	30.9			
Harassment/Intimidation	2008–09	31	8.9	11.3	2.21	49.1	0.03
	2010–11	24	3.6	6.4			
Serious Bodily Injury	2008–09	31	7.1	11.1	1.74	50.7	0.09
	2010–11	24	2.9	6.8			
Total Incidents	2008–09	31	141.7	116.3	2.06	48.5	0.05
	2010–11	24	90.9	64.4			

Table 23. Differences in Mean Levels of Disciplinary Incident Reports from 2008–09 to 2010–11, Schools with LOW Implementation of PATHS as Reported During the 2011–12 School Year

Type of Incident	Year	N	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Fighting/Violence	2008–09	18	64.5	48.0	1.14	30.0	0.26
	2010–11	14	47.1	34.2			
Disobedient/Disruptive Behavior	2008–09	18	100.6	72.4	1.28	30.0	0.21
	2010–11	14	71.9	47.9			
Harassment/Intimidation	2008–09	18	11.3	9.8	2.09	30.0	0.05
	2010–11	14	4.6	8.0			
Serious Bodily Injury	2008–09	18	9.9	10.7	2.25	28.0	0.03
	2010–11	14	3.1	6.3			
Total Incidents	2008–09	18	190.4	121.5	1.77	28.0	0.09
	2010–11	14	130.3	68.8			

Table 24. Differences in Mean Levels of Disciplinary Incident Reports from 2008–09 to 2010–11, Schools with MEDIUM or HIGH Implementation of Student Support Teams as Reported During the 2011–12 School Year

Type of Incident	Year	N	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Fighting/Violence	2008–09	47	55.4	46.8	2.80	76.5	0.01
	2010–11	39	32.6	27.7			
Disobedient/Disruptive Behavior	2008–09	47	147.9	238.9	1.78	66.7	0.08
	2010–11	39	78.8	108.4			
Harassment/Intimidation	2008–09	47	13.6	18.9	2.82	69.1	0.01
	2010–11	39	4.8	9.2			
Serious Bodily Injury	2008–09	47	14.3	28.6	2.24	59.2	0.03
	2010–11	39	4.3	10.1			
Total Incidents	2008–09	47	248.7	341.6	2.22	64.8	0.03
	2010–11	39	126.5	146.5			

Table 25. Differences in Mean Levels of Disciplinary Incident Reports from 2008–09 to 2010–11, Schools with LOW Implementation of Student Support Teams as Reported During the 2011–12 School Year

Type of Incident	Year	N	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Fighting/Violence	2008–09	10	81.4	52.3	0.58	17.0	0.57
	2010–11	9	69.9	30.4			
Disobedient/Disruptive Behavior	2008–09	10	128.9	108.1	0.95	17.0	0.36
	2010–11	9	86.6	83.3			
Harassment/Intimidation	2008–09	10	17.4	16.0	0.90	17.0	0.38
	2010–11	9	11.4	12.4			
Serious Bodily Injury	2008–09	10	20.9	23.9	0.46	17.0	0.65
	2010–11	9	16.0	22.0			
Total Incidents	2008–09	10	306.1	307.6	0.65	17.0	0.53
	2010–11	9	224.6	230.4			

Table 26. Differences in Mean Levels of Disciplinary Incident Reports from 2008–09 to 2010–11; Schools with MEDIUM or HIGH Implementation of Planning Centers as Reported During the 2011–12 School Year

Type of Incident	Year	N	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Fighting/Violence	2008–09	40	61.4	51.0	2.67	64.0	0.01
	2010–11	36	36.1	29.8			
Disobedient/Disruptive Behavior	2008–09	40	150.0	232.5	1.96	51.7	0.06
	2010–11	36	72.1	91.0			
Harassment/Intimidation	2008–09	40	15.4	20.0	3.17	55.4	0.00
	2010–11	36	4.4	9.0			
Serious Bodily Injury	2008–09	40	16.0	31.3	1.95	53.9	0.06
	2010–11	36	5.5	13.4			
Total Incidents	2008–09	40	274.8	359.2	2.25	55.6	0.03
	2010–11	36	133.5	162.5			

Table 27. Differences in Mean Levels of Disciplinary Incident Reports from 2008–09 to 2010–11, Schools with LOW Implementation of Planning Centers as Reported During the 2011–12 School Year

Type of Incident	Year	N	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Fighting/Violence	2008–09	18	55.2	41.9	0.35	28.0	0.73
	2010–11	12	50.1	35.3			
Disobedient/Disruptive Behavior	2008–09	18	125.8	193.0	0.33	28.0	0.75
	2010–11	12	104.7	135.8			
Harassment/Intimidation	2008–09	18	11.4	13.7	0.09	28.0	0.93
	2010–11	12	11.0	11.7			
Serious Bodily Injury	2008–09	18	13.4	17.5	0.63	28.0	0.53
	2010–11	12	9.6	14.7			
Total Incidents	2008–09	18	212.4	265.8	0.38	28.0	0.71
	2010–11	12	179.3	182.7			

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