Can Restorative Practices Improve School Climate and Curb Suspensions?

An Evaluation of the Impact of Restorative Practices in a Mid-Sized Urban School District

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Preface

Across the country, school districts, their stakeholders, and policymakers have become increasingly concerned about suspensions, particularly about suspending students from elementary school and disproportionately suspending ethnic/racial minority students. Suspended students are less likely to graduate, and this may be at least in part because they miss the instructional time they need to advance academically.

Restorative practices have gained buy-in among school districts, their stakeholders, and policymakers as a strategy to reduce suspension rates. By proactively improving relationships among students and staff and by building a sense of community in classrooms and schools, students may be less inclined to misbehave. And by addressing severe misbehavior through a restorative approach, students might realize the impacts of their actions and be less likely to offend again.

This study represents one of the first randomized controlled trials of the impacts of restorative practices on classroom and school climate and suspension rates. We also have collected extensive data about implementation to help us examine how it is related to effects and to develop operational guidance for school district leaders. The studied schools—all part of the Pittsburgh Public Schools district—implemented restorative practices for two school years (2015–16 and 2016–17) under the leadership of the International Institute for Restorative Practices.

This study was sponsored by the National Institute for Justice as part of its Comprehensive School Safety Initiative, and the study was undertaken by two divisions of the RAND Corporation: RAND Social and Economic Well-Being and RAND Education and Labor.

RAND Social and Economic Well-Being seeks to actively improve the health and social and economic well-being of populations and communities throughout the world. This research was conducted in the Justice Policy Program within RAND Social and Economic Well-Being. The program focuses on such topics as access to justice, policing, corrections, drug policy, and court system reform, as well as other policy concerns pertaining to public safety and criminal and civil justice. For more information, email justicepolicy@rand.org.

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Contents

Preface ... iii
Figures and Tables ... vii
Summary ... ix
Acknowledgments ... xvii
Abbreviations ... xix

CHAPTER ONE
Introduction ... 1
Restorative Practices ... 2
Evidence Supporting Restorative Practices ... 3
Pursuing Equitable and Restorative Communities ... 5
Study Overview ... 6
Report Overview ... 7

CHAPTER TWO
Study Approach ... 9
Randomization ... 9
Data Collection ... 10
Data Analyses ... 15
Limitations ... 23

CHAPTER THREE
The PERC Program and District Context ... 25
SaferSanerSchools™ Whole-School Change Program ... 25
Treatment Schools ... 27
District Context ... 28

CHAPTER FOUR
PERC Implementation ... 29
Training and Support ... 29
Challenges to Implementation ... 35

CHAPTER FIVE
Buy-In, Confidence, and Use of Restorative Practices ... 37
Buy-In ... 37
Confidence ... 38

Use of Restorative Practices 38
Facilitators of Use 42
Perceived Impacts 43
Changes from Year 1 to Year 2 44

CHAPTER SIX
Outcomes: Causal Findings 47
Suspensions 47
Arrests 51
Mobility 52
Achievement 55
Teaching Practices and Student Perceptions of Classroom Climate 55
Staff Perceptions of School Climate 60

CHAPTER SEVEN
Likelihood of Sustainability 63
District Efforts to Sustain and Scale PERC 63
Challenges 65
Recommendations on Scale and Sustainability 66

CHAPTER EIGHT
Conclusions and Implications 69
Implications 71

Technical Appendix: School Staff Surveys 73
References 109

Figures and Tables

Figures

5.1. Average Reported Use, by Restorative Practices Element 39
A.1. Distribution for Buy-In 101
A.2. Distribution for Confidence 101
A.3. Distribution for Perceived Impact on Climate 102
A.4. Distribution for Perceived Impact on Handling Conflict 102
A.5. Distribution for Proactive Circles Frequency 104
A.6. Distribution for Impromptu Conferences Frequency 104
A.7. Distribution for Restorative Conferences Frequency 105
A.8. Distribution for Formal Restorative Conferences Frequency 105
A.9. Rates of Missingness Across Survey Outcomes for Year 1 and Year 2 107

Tables

S.1. The 11 Essential Elements of the SaferSanerSchools™ Whole-School Change Program .. xi
2.1. Random Assignment of Paired PPS Schools 11
2.2. Response Rate Information for RAND Online Surveys of PPS Staff 12
2.3. Primary and Secondary Outcome Measures for Impact Analysis 17
2.4. Student, Staff, and School Covariates 19
2.5. Composite Indices for Survey Data Analysis 21
3.1. The 11 Essential Elements of the SaferSanerSchools™ Whole-School Change Program 26
3.2. PERC Treatment Schools, by Grade Level 27
4.1. Total Number and Percentage of PERC School Staff Participating in IIRP Training Over the Two-Year Implementation Period 30
4.2. Proportion of PERC Staff Attending Professional Learning Groups by Year 31
5.1. Proportion of PERC Staff Who Understand Restorative Practices and the Effect Size of the Differences in Use 43
5.2. Changes in Survey Measures Across Implementation Years 45
6.1. Suspension Findings 48
6.2. Average Days Lost to Suspension 50
6.3. Percentage of Students Suspended at Least Once 51
6.4. Arrest Findings 52
6.5. Absence Findings 53
6.6. Mobility Findings 54
6.7. Student Achievement Findings 56

6.8. Teacher Performance Findings 58
6.9. Teaching and Learning Conditions Survey Findings 61
A.1. Buy-In Factor Loadings 100
A.2. Variation in Buy-In by School 106
A.3. Variation in Use by School 106
A.4. Year 1 Balance Statistics 108
A.5. Year 2 Balance Statistics 108

Summary

Recent studies have concluded that exclusionary discipline practices, such as suspension, might be impeding student success. Correlational studies have shown a link between suspension and lower student achievement (Skiba et al., 2014), and suspensions are associated with involvement in the juvenile and criminal justice systems (Fabelo et al., 2011; González, 2012). One study found suspension to be the top predictor of students dropping out of school (Flannery, 2015). Correlational data show that, in the United States, controlling for demographic and academic variables (e.g., family income, immigration status, test scores), the estimated graduation rate for suspended students was 68 percent, compared with 80 percent for non-suspended students (Rumberger and Losen, 2016). Harsh discipline for minor or subjective infractions has contributed to high suspension rates. Some studies have found that most offenses for which students are suspended are nonviolent (Skiba et al., 2014), including tardiness, absence, and disrespect (González, 2012).

Additionally, studies show that African American students are suspended at higher rates than white students. A report from the Civil Rights Project at the University of California, Los Angeles, documented large racial disparities in California's school districts, noting that African American students were disproportionately dealt the harshest exclusionary penalties (Losen, Martinez, and Gillespie, 2012). A study of three years of discipline data from the state of Arkansas found that while school-level differences accounted for most of the variation in discipline, African American students received longer punishments than their white peers for the same offenses, even in the same schools (Anderson and Ritter, 2017).

The use of restorative practices in schools has been suggested by policymakers and practitioners as both an alternative to exclusionary practices and as a mechanism for improving student behavior, thus reducing the need for suspensions. Restorative practices grew out of the use of restorative justice in the criminal justice system. Restorative justice relies on the basic notion that people are connected through a web of relationships and that when harm occurs between people, the web of relationships that creates a community is torn (Zehr, 2002). In practice, restorative justice brings together victims and offenders to discuss the harm, the impact it had, and what needs to be done to reestablish the relationships that form the community (Zehr, 2002; González, 2012).

Restorative practices in schools include many specific program types and do not have one monolithic definition in the literature; they are broadly seen as a nonpunitive approach to handling conflict (Fronius et al., 2016). Restorative practices both prevent harm through relationship-building and respond to conflict in ways that repair damaged relationships (González, 2012; Kline, 2016).

A number of descriptive reports and correlational studies suggest positive outcomes of implementing restorative practices in schools (Riestenberg, 2003; Mirsky, 2007; Baker, 2008;

McCold, 2008; Lewis, 2009; Sumner, Silverman, and Frampton, 2010; Gonzalez, 2012, 2015; Simson, 2012; Armour, 2013, 2016; McMorris et al., 2013; Jain et al., 2014; Gregory et al., 2016). These include lower suspension rates, improved school climate, and improved student attendance. However, none of these studies used experimental methods, which raises questions about the validity and generalizability of their findings.

Study Context

Pittsburgh Public Schools (PPS) is the second-largest school district in Pennsylvania, serving approximately 25,000 students in kindergarten through 12th grade in 54 schools. In July 2014, the district submitted a proposal to the National Institute of Justice (NIJ) to implement restorative practices. PPS called its initiative "Pursuing Equitable and Restorative Communities," which is commonly referred to by the acronym PERC.

In its proposal, PPS argued that schools needed to be safer. The district's 2013–14 student survey data demonstrated that 18 percent of students believed that they must be ready to fight to defend themselves, 35 percent felt angry about the way adults treated them at school, and 22 percent believed that student misbehavior slowed down learning. Additionally, 20 percent of all PPS students and 28 percent of African American males were suspended during the 2013–14 school year (SY). The district considered these suspension rates problematic for three reasons: (1) They backed up the notion that PPS schools were not safe places, (2) disparities in suspension rates raised questions about equity (both in terms of treatment and achievement) for African American students, and (3) the overall rates suggested long-term negative impacts for a sizable proportion of PPS students, given the literature on the negative associations with exclusionary disciplinary practices.

PERC Implementation

Upon receipt of the NIJ grant, PPS contracted with the International Institute for Restorative Practices (IIRP) to implement the IIRP's SaferSanerSchools™ Whole-School Change program. The program is grounded in what IIRP calls 11 essential elements. Table S.1 presents these elements and a definition of each taken from IIRP's program literature (IIRP, 2011). As the name of this model implies, the SaferSanerSchools™ Whole-School Change program requires all staff in a school building to learn how to enact almost all of these essential elements (with the exception of restorative conferences, which might be run by only a few school administrators).

A few themes run through these elements, including the importance of communication, responsibility, restoration, and separating the "deed" from the "doer." Students (and school staff) communicate with each other both to build positive environments and to respond restoratively to disruption. Those who do the disrupting learn to take responsibility for their actions, while those affected learn to describe the impact on them. Those who commit harm are also expected to make reparations, which might include issuing a formal apology or even doing some type of service work in the school where the incident happened. It is also important to note that, even with restorative practices in place, students who commit an offense that warrants suspension based on district or school policy are still suspended; students are still held accountable for their actions and punished appropriately. But in applying these consequences,

Table S.1
The 11 Essential Elements of the SaferSanerSchools™ Whole-School Change Program

Element	Definition
Affective statements	Personal expressions of feeling in response to specific positive or negative behaviors of others
Restorative questions	Questions selected or adapted from two sets of standard questions designed to challenge the negative behavior of the wrongdoer and to engage those who were harmed
Small impromptu conferences	Questioning exercises that quickly resolve lower-level incidents involving two or more people
Proactive circles	Meetings with participants seated in a circle, with no physical barriers, that provide opportunities for students to share feelings, ideas, and experiences in order to build trust, mutual understanding, shared values, and shared behaviors
Responsive circles	Meetings with participants seated in a circle, with no physical barriers, that engage students in the management of conflict and tension by repairing harm and restoring relationships in response to a moderately serious incident or pattern of behavior affecting a group of students or an entire class
Restorative conferences	Meetings in response to serious incidents or a cumulative pattern of less serious incidents where all of those involved in an incident (often including friends and family of all parties) come together with a trained facilitator who was not involved in the incident and who uses a structured protocol
Fair process	Outlines a set of transparent practices designed to create open lines of communication, assure people that their feelings and ideas have been taken into account, and foster a healthy community as a means of treating people respectfully throughout a decisionmaking process so that they perceive that process to be fair, regardless of the outcome
Reintegrative management of shame	Process of listening actively to what a shamed person has to say, acknowledging the feelings of the shamed person, and encouraging the shamed person to express his/her feelings and to talk about the experience that brought about the shame response
Restorative staff community	A community that models and consistently uses restorative practices to build and maintain healthy staff relationships
Restorative approach with families	Consistently uses restorative practices in interactions with students' family members
Fundamental hypothesis understandings	Understanding the fundamental hypothesis that human beings are happiest, healthiest, and most likely to make positive changes in their behavior when those in authority do things *with* them rather than *to* them or *for* them

SOURCE: IIRP, 2011.

school staff are taught to separate the harm that was done from the person who did it, being careful not to imply that the person, even if suspended, is a bad person who does not belong in the community. Restorative practices also provide strategies that schools can use to welcome the student back after a suspension and reintegrate them into the community.

Staff in the selected treatment PPS schools received training on and support in implementing restorative practices in several ways. As part of the SaferSanerSchools™ Whole-School Change program designed for PPS, IIRP provided four days of professional development; all staff in the PERC schools were asked to attend two of these days, and the other two days were voluntary. Throughout the two-year implementation period, IIRP distributed books on restorative practices to all selected school staff and distributed videos, posters, and other supporting materials to each PERC school. Each principal was assigned an IIRP coach to support the school during the two-year implementation period. Principals were asked to establish restor-

ative leadership teams (RLTs), and the IIRP coaches were asked to schedule monthly calls with these teams to monitor progress and address challenges. The IIRP coaches also visited each of their assigned schools at least twice during a school year. All PERC school staff were asked to participate in monthly professional learning groups (PLGs). The district's restorative practices project manager provided additional support to the selected schools, including supplementary materials and individualized coaching.

Study Overview

PPS asked RAND to evaluate PERC. During the course of this two-year study, we chronicled implementation and assessed outcomes. The following three research questions guided our work:

1. How was the PERC model implemented, and what challenged and facilitated use of restorative practices?
2. What were the impacts of PERC?
3. How likely is it that PERC will be sustained in PPS?

We set out to describe implementation and determine what features of it supported teacher and staff use of restorative practices. To build on current research, we examined several ways in which PERC might affect students, teachers, and schools, including student and teacher attendance, suspension rates and disparities therein, student and teacher perceptions of school climate, and academic achievement. We also documented district efforts to scale and sustain PERC. In this report, we document these efforts, summarize potential challenges the district may face, and make recommendations for the district based on our study's data.

It is important to understand what we evaluated. Our study examined a specific restorative practices program—IIRP's SaferSanerSchools™ Whole-School Change program—implemented in a selected group of PPS schools. However, the district offered additional support on restorative practices, over and above the program prescriptions, such as monthly meetings for school leaders and book clubs for parents. Some of the schools also offered additional support to staff, such as training on recognizing and responding to trauma. Moreover, the use of restorative practices varied among individuals. Although, on average, use was high, not every staff member used the practices, and we do not know how many or which students experienced restorative practices, nor to what degree. Neither do we know the extent to which the control schools were implementing restorative practices or something similar. These details are important to consider when contemplating our findings.

Study Approach

We employed a randomized controlled trial to study PERC outcomes and collected qualitative data on implementation. The final sample contained 44 schools, evenly split between treatment (PERC school) and control groups. We collected implementation data through observations of IIRP trainings, surveys of PERC school staff, observations of restorative practices in four case study schools, and interviews of school, district, and IIRP staff. We also obtained

administrative data from the district and the county. We collected data during two years of implementation: Year 1 spanned June 2015 (when training began on PERC for school staff) through June 2016, and Year 2 spanned June 2016 through June 2017. Our impact analyses included outcomes at the student level (suspensions, arrests, attendance, mobility, and achievement), the teacher level (composite teaching performance, value added, and student ratings of their teachers), and the school level (teacher ratings of teaching and learning conditions).

Study Limitations

There are limitations to this study related to the timeframe, setting, and scope. Some other studies of restorative practices span three to even seven years (e.g., Gonzalez, 2015). Here, we are examining outcomes after two years of implementation. We do not know whether there is an ideal number of years of implementation to achieve desired outcomes, but two years may be insufficient. This evaluation is most relevant for mid-sized urban school districts; our findings might not apply to other settings. Despite the study's fairly large scope, it does not address all questions of potential interest. We lack a direct measure of student opinions about PERC and relied on school staff to provide us their opinions of student reactions and engagement. We also were unable to access referral data. The use of restorative practices may be affecting the number of student referrals to the office for low-level behavior disturbances. Our interviews represent a very small percentage of PERC school staff (approximately 6 percent); these interviewees' perceptions and experiences cannot be generalized further.

There are also limitations that arise from the study design and data availability. Randomization does not guarantee that treatment and control samples are perfectly equivalent on baseline characteristics, and this can be a particular limitation for analysis of the impact on subgroups of the population. We also are limited in the information we have about the connections between particular students and staff, which limits our ability to investigate whether student outcomes were better if staff used restorative practices more fully.

Finally, as noted earlier, we do not know about disciplinary practices in the control schools. We imagine that business as usual in our 22 comparison schools might have included restorative practices. We did not conduct surveys in these schools that would allow us to compare and contrast their context with those of the PERC schools.

Key Findings on Implementation and Outcomes

Implementation Strategies to Build Capacity Were Successful

As described above, staff in the PERC schools received training on and support in implementing restorative practices in several ways. Most of these efforts appear to have paid off. Almost all PERC staff developed at least some understanding of restorative practices over the two-year implementation period. Staff bought into these practices at the end of Year 1 and this buy-in did not flag. Staff used restorative practices often, particularly by means of affective statements, proactive circles, impromptu conferences, and/or responsive circles. In the PERC schools, averaging across both years of implementation, 49 percent of staff reported using affective statements often or always, 69 percent reported using proactive circles often or always, and 44 percent reported using impromptu conferences or responsive circles often or always.

And use of restorative practices increased in the second year. This may be partly because staff were confident in Year 1 that they understood and could use restorative practices; their confidence grew in the second year, as well.

Staff who attended the PLGs, received coaching from IIRP, and/or received support from a school leader were more likely to use restorative practices. So were staff who reported that they understood the essential elements of restorative practices. This understanding was associated with participating in the PLGs. The biggest reported barrier to implementing restorative practices was time, both for learning the practices and then for using them.

PERC Improved the Overall School Climate, as Rated by Teachers

We found strong evidence that PERC had positive effects on teachers' perceptions of teaching and learning conditions. Teachers' responses to the district's Teaching and Learning Conditions Survey indicated significantly higher ratings of conduct management, teacher leadership, school leadership, and overall teaching and learning conditions in the PERC schools than in control schools. The impact of PERC on conduct management is driven by the positive and statistically significant impact on responses to items about whether faculty work in a safe environment and whether they understand policies regarding student conduct.

PERC staff also reported in our survey that they had stronger relationships with students because of restorative practices. An interviewee noted, "I do feel like the kids are more willing and forthcoming with their problems and information to adults. I feel like some of them do consider us to be more of an ally to them." Finally, although classroom climate ratings, based on the district's annual administration of the Tripod student engagement survey (Tripod Education partners, undated), were lower in PERC schools overall, teachers who used restorative practices were not rated significantly lower by their students than those in comparison schools.

PERC Reduced the Average Suspension Rate for PERC Schools, as Well as the Disparities in Rates by Race and Income

Although suspension rates have gone down in the district overall in the past few years, PERC further reduced both the number of days students were suspended and the number of suspensions. Not only were PERC students less likely to be suspended, but they were less likely to be suspended multiple times. In non-PERC schools, days lost to suspension in the district declined by 18 percent from the 2014–15 SY to the 2016–17 SY, but in the PERC schools, they declined by 36 percent. Another way to look at suspensions is by the percentage of students who were suspended. In the 2014–15 SY, 16 percent of students were suspended. In the 2016–17 SY, 15 percent of students were suspended from non-PERC schools. In the PERC schools, only 13 percent of the students were suspended. Moreover, PERC reduced the rate at which students were sent to alternative schools. Students in the PERC schools experienced more school days because they were less likely to be suspended or transferred to other schools than were students in the control schools.

Suspension rates of African American students and of those from low-income families also went down in PERC schools, shrinking the disparities in suspension rates between African American and white students and between low- and higher-income students. Suspension rates also decreased for female students.

The impact on overall suspension rates was driven by lower rates in PERC elementary schools. Elementary students also had higher attendance rates, which partially reflects fewer

suspensions but also reflects fewer other types of absences and therefore might be an indicator of improved school or classroom climates in these PERC schools.

It is difficult to know whether student behavior improved because of PERC, whether schools were choosing to punish students without suspending them, or both. Surveyed PERC staff did not think that PERC was affecting student behavior. However, they did report that their relationships with students had improved because of PERC. It could be that better student-to-staff relationships will lead to improved student behaviors over time, if that is not the case now.

Not All PERC Impacts Were Positive

We also found negative impacts of PERC. Despite fewer suspensions, academic outcomes did not improve in PERC schools. At the middle grade level (grades 6–8), academic outcomes actually worsened in the treatment schools. Neither did we find fewer suspensions in middle grades. It could be that it is more challenging for restorative practices to positively affect middle grade students, at least within a two-year time frame.

We did not see fewer suspensions for male students, for students with individual education plans, or for incidents of violence or weapons violations. Neither did we see a reduction in arrests. This might be because teachers have more discretion to implement a restorative punishment for nonviolent behavior, whereas the district's code of conduct requires a suspension for violent behavior. This, of course, raises the question of whether restorative practices can be effective in curbing the most violent behavior, at least within a two-year implementation period.

Recommendations for School Districts

Because we do see reductions in suspension rates and in disparities in them by race and income, we consider restorative practices to be promising, particularly for elementary schools. We provide recommendations here for other districts considering implementing something similar to PERC:

- Given reports on the constraints on teachers' time, emphasize restorative practices that can be woven into the school day. Teachers can use affective statements while they are teaching, for example. They can also use circles to simultaneously build community and convey core academic content. The IIRP coaches had other suggestions for restorative practices that were not time-consuming, such as standing at the door as students enter and welcoming each student by name.
- Ensure that school leaders understand and can model restorative practices. School staff who received modeling and/or feedback from school leaders were more likely to use restorative practices.
- Provide mandatory professional development. The mandatory professional development sessions provided on the basics of restorative practices and on how to run circles—an essential element of the practices—were well attended and highly rated by participants.
- Provide books and other materials on restorative practices. Staff acknowledged receiving and valuing these materials.

- Provide coaching by an experienced coach. Each PERC principal was assigned an IIRP coach to support the school during the two-year implementation period. Initially, the plan was for each coach to visit the school twice each year. However, principals requested more-frequent visits and were allowed more in the second year. We do not know the ideal number of coaching visits, but two per year might be insufficient. The staff who interacted with these coaches were more likely to use restorative practices. In interviews, PERC staff noted the importance of having an external, highly practiced coach provide objective feedback and experience-based modeling.
- Establish a mechanism for school staff to meet at least once per month as a professional learning community on restorative practices. PERC school staff who participated in monthly PLGs were more likely to understand and use restorative practices.
- Ensure that leaders at the district level can coordinate this work. The restorative practices project manager at the district level supported PERC in a myriad of ways. Surveyed and interviewed staff credited this role with spurring and supporting implementation. It is unlikely that individual schools would have been able to implement restorative practices on their own, without district expectations, support, and accountability.
- Set, and update, clear expectations. Interviewees and surveyed staff noted that they wanted clear expectations regarding the use of restorative practices. It is unlikely that busy school leaders and teachers would have established PLGs, for example, if the district had not set an expectation for them. As the program matured, staff continued to ask the district to set expectations around new staff training, continuing PLGs, and the like.
- Implement data collection systems to collect accurate information on all types of behavioral incidents and remedies. In particular, teachers and other staff should have a system in which they can record incidents, both minor and major, and responses, such as referrals to the principal, detention, in-school suspension, restorative circles, and conferences. These data are crucial to track whether restorative practices are having the desired impact.

Acknowledgments

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Representatives from our four case study schools generously allowed us access to observe restorative practices and to interview stakeholders. Most staff in the 22 PERC schools took the time to fill out a survey twice during each of the two study years. We are particularly grateful to the people who allowed us to interview or observe them and to those who completed the surveys. District data were provided when requested, and we appreciate the time that goes into fulfilling those requests.

Several RAND staff members contributed to the data analyses and therefore to this report. In addition to the authors, Andrea Joseph observed instruction and conducted interviews in the case study schools. Stephanie Lonsinger assisted with editing and formatting. During the quality assurance and production process, Sarah Hunter provided valuable feedback on this document. Our peer reviewers, Joie Acosta, senior behavioral/social scientist at the RAND Corporation, and Anne Gregory, associate professor at Rutgers University, improved the quality of this report. James Torr provided valuable editorial guidance.

Abbreviations

DIBELS	Dynamic Indicators of Basic Early Literacy Skills
EFA	exploratory factor analysis
IEP	individualized education program
IIRP	International Institute for Restorative Practices
LES	learning environment specialist
NCE	normal curve equivalent
NIJ	National Institute of Justice
PBIS	Positive Behavior Interventions and Supports
PERC	Pursuing Equitable and Restorative Communities
PLG	professional learning group
PPS	Pittsburgh Public Schools (district)
PSAT	Preliminary SAT (Scholastic Aptitude Test)
PSSA	Pennsylvania System of School Assessment
RLT	restorative leadership team
RP	restorative practices
SY	school year
TLC	Teaching and Learning Conditions (PPS survey)
WWC	What Works Clearinghouse

CHAPTER ONE

Introduction

School district leaders strive for all students to graduate and go on to succeed in college and/or the workforce, and as a citizen in U.S. society. Recent studies have concluded that exclusionary discipline practices, such as suspension, might be impeding this success. Correlational studies have shown a link between suspension and lower student achievement (Skiba et al., 2014), and a statewide study found that 31 percent of suspended or expelled students repeated a grade at least once, whereas only 5 percent of non-suspended or expelled students were held back (Fabelo et al., 2011). Students who miss school are more likely to struggle with academics, particularly reading, and are more likely to drop out of school (Robers, 2017). Suspension was found in one study to be the top predictor of students dropping out of school (Flannery, 2015). A 2017 statewide study isolating suspension from other common predictors of dropping out found that suspensions alone accounted for a 6.5 percent decline in graduation rates (Rumberger and Losen, 2017). Correlational data show that in the United States, controlling for demographic and academic variables (e.g., family income, immigration status, test scores), the estimated graduation rate for suspended students was 68 percent, compared with 80 percent for non-suspended students—a 12-percentage-point difference (Rumberger and Losen, 2017). Being suspended may also dampen civic involvement. A review of the National Longitudinal Survey of Adolescent Health found that suspension in school has a modestly suppressive effect on the likelihood that individual youth will vote and volunteer in civic activities after high school (Kupchik and Catlaw, 2015). Finally, suspensions are associated with involvement in the juvenile and criminal justice systems (Fabelo et al., 2011; González, 2012).

From 1974 to the mid-2000s, suspension and expulsion rates doubled in the United States (National Center for Education Statistics, 2009). A landmark study of school discipline tracked all 7th-grade public school students in Texas across three cohorts (those who were in 7th grade in 2000–01, 2001–02, and 2002–03; more than 900,000 students) for six years and found that nearly six in ten public school students were suspended or expelled at least once between their 7th- and 12th-grade school years (SYs; Fabelo et al., 2011).

Harsh discipline for minor or subjective infractions might be contributing to high suspension rates. Some studies have found that most offenses for which students are suspended are nonviolent (Skiba et al., 2014), including tardiness, absence, and disrespect (González, 2012). The increase in suspensions for low-level offenses has been attributed in part to high-stakes accountability policies such as zero tolerance (Cobb-Clark et al., 2015) and in part to increasing public concern for children's safety in school (Skiba, 2014).

However, a change in the direction of school discipline is underway. From SYs 2011–12 to 2013–14, the number of suspensions nationwide fell by nearly 20 percent (U.S. Department of Education, 2016). State and local policies that seek to curb high rates of suspension have

been credited with this change, as research has shown that harsh, exclusionary disciplinary practices, such as out-of-school suspensions, are disproportionately given to students of color, lead to negative outcomes for students, and are not effective at improving school climate or changing student behavior.

Nonetheless, African American students may still be suspended at higher rates than white students. A report from the Civil Rights Project at the University of California, Los Angeles (UCLA), documented large racial disparities in California's school districts, noting that African American students were disproportionately dealt the harshest exclusionary penalties (Losen, Martinez, and Gillespie, 2012). California's suspension rates have dropped significantly overall since this study called attention to the issue and policies were put in place to decrease suspensions, but a 2017 study found that African American students were still suspended at a higher rate than white students (Loveless, 2017). A study of three years of discipline data for the state of Arkansas found that while school-level differences accounted for most of the variation in discipline, African American students received longer punishments than white peers for the same offenses even in the same schools (Anderson and Ritter, 2017). In 2002, Skiba and colleagues conducted a study of middle schools in a large urban district and found that the differential treatment of African American students in school discipline can be traced to the classroom level: African American students were referred more often to the office for more subjective infractions, such as disrespect.

In addition to the negative outcomes associated with suspensions, there is little evidence that they reduce misbehavior or improve school climate. Skiba (2014) suggests that exclusionary policies have a negative impact on school climate and students' engagement with school. In 2008, the American Psychological Association's Zero Tolerance Task Force released a report stating that zero-tolerance policies that exclude students from school did not improve school safety, contrary to expectation and belief. In fact, schools with higher suspension and expulsion rates had lower ratings for overall school climate. The task force's study also found that suspensions and expulsions did not reduce future student misconduct (American Psychological Association Zero Tolerance Task Force, 2008). Although zero-tolerance policies are intended to deter negative behavior by making a clear point to students about what is not permitted, these policies might fail to teach students preventive strategies (González, 2012; Kline, 2016), so that they do not repeat the same misbehaviors. These types of criticisms have led to a growing interest in interventions, such as restorative practices, that help students understand the impacts of their actions.

Restorative Practices

Various groups in recent years have advocated research-based practices to improve school climate to reach the goal of safe schools with productive learning environments (American Psychological Association Zero Tolerance Task Force, 2008; González, 2012; National Association of School Psychologists, 2013). Research on school climate, more generally, has led to the theory that students may be most responsive to authority when schools have a climate in which student voice is honored and adults show care for students and are firm in expectations of behavior (Gregory et al., 2010). Restorative practices have been promoted as a research-based approach to improving school climate (e.g., Kline, 2016).

Restorative practices in schools grew out of the use of restorative justice in the criminal justice system. Restorative justice relies on the notion that people are connected through a web of relationships, and that when harm occurs between people, the web of relationships that creates a community is torn (Zehr, 2002). In practice, restorative justice brings together victims and offenders to discuss the harm, the impact it had, and what needs to be done to reestablish the relationships that form the community (Zehr, 2002; González, 2012).

Restorative practices, as they are typically called in a school or community setting, include many specific program types and do not have one specific definition in the literature; they are broadly seen as a nonpunitive approach to handling conflict (Fronius et al., 2016). Restorative practices both prevent harm through relationship-building and respond to conflict in ways that repair damaged relationships (González, 2012; Kline, 2016).

Several states and school districts across the country have begun to support or implement restorative practices. In 1995, the Minnesota Department of Children, Families, and Learning began promoting the use of restorative practices. Three years later, financial support was provided to train school staff at sites across the state in restorative practices. Since then, governing bodies in California and Colorado have funded professional development for school staff on restorative practices. In 2003, Denver Public Schools piloted restorative practices in a single school; in 2009, the district expanded implementation to all its schools. School districts in Chicago, Los Angeles, Miami, New York City, Oakland (California), Philadelphia, and San Francisco have followed suit. These districts have hired restorative practices coaches and trained staff on the use of restorative practices. In all of these districts, leaders hope to reduce suspension rates, some districts specifically focusing on reducing racial disparities in suspension rates.

The International Institute for Restorative Practices (IIRP) provided this training for staff in Philadelphia and San Francisco. IIRP defines the fundamental premise of restorative practices as "People are happier, more cooperative and productive, and more likely to make positive changes, when those in position of authority do things with them, rather than to them or for them." In order for teachers and students to act *with* each other, they need to develop strong relationships. IIRP specifies several restorative practices to meet that goal. For example, teachers use a "fair process" in classrooms to allow students a voice in establishing classroom norms and expectations. Teachers and other school staff use affective statements (or "I" statements) that acknowledge their feelings and perspectives in response to a student's actions. Teachers and other school staff use circles proactively to build communities in classrooms and schools and reactively, in response to an offense. When there is a behavioral incident, teachers ask nonjudgmental restorative questions that are intended to "separate the deed from the doer" and avoid shaming, while leading offenders to reflect on the impacts of their behavior and what could be done to restore the relationship. These approaches include proactive strategies to build relationships and develop community, as well as reactive strategies to repair harm and restore relationships after harm occurs.

Evidence Supporting Restorative Practices

To date, there have been few rigorous evaluations of restorative practices, and this study is among the first to report on findings from a randomized controlled trial of restorative practices in schools. Still, a number of descriptive reports and correlational studies suggest positive

outcomes of restorative practices in schools related to student discipline, school climate, and attendance.

Student Discipline

Simson (2012) conducted one of the few quasi-experimental studies of restorative practices to compare outcomes between treated and comparison schools, examining schools across two states. He found that schools implementing restorative practices had a slightly greater decrease in suspension rates overall and a slightly smaller African American–white gap in suspension rates (significant at the $p < 0.10$ level).

There are many more pre-post evaluations of restorative practices demonstrating decreases in suspensions, office referrals, expulsions, and reports of violent behavior (see, e.g., Anyon et al. [2014], and for the latter, see McCold [2008], Lewis [2009], and McMorris et al. [2013]). Researchers have studied and found impacts of restorative practices after one, two, three, and seven years of implementation. A 2016 study showed that over the course of a school year, greater use of restorative practices was associated with lower teacher referrals for misconduct/defiance (Gregory et al., 2016). Armour (2013) reported an 84-percent drop in suspensions for 6th-graders during the first year of restorative practices implementation in a Texas school and also a decrease in referrals. One Minnesota elementary school saw a 57-percent drop in discipline referrals, 35-percent drop in average time of in-school suspensions, 77-percent drop in out-of-school suspensions, and only one expulsion a year after introducing restorative practices (Riestenberg, 2003). A study conducted two years after launching restorative practices in an Oakland, California, middle school found a 74-percent drop in suspensions and a 77-percent drop in referrals for violence (Sumner, Silverman, and Frampton, 2010). Schools in Denver reported a 44-percent reduction in suspensions and a decrease in expulsions across a three-year post-implementation period (Baker, 2008). A different study in Denver found that the district's overall suspension rate fell from 11 percent to 6 percent between 2006 and 2013 while implementing restorative practices (Gonzalez, 2015). However, other studies (e.g., Anyon et al., 2014; Anyon et al., 2016; Gregory , et al., 2018) concluded from the Denver Public School data that restorative interventions were not associated with African American students having lower odds of receiving a suspension after a referral.

Some studies, however, have found that the African American–white suspension gap has narrowed in schools using restorative practices. Oakland, California, middle schools saw the suspension rate of African American students decline at a sharper rate than that of white students during the implementation of restorative practices (Jain et al., 2014). A Denver study concluded that the African American–white suspension gap decreased from nearly a 12-point gap in 2006 to just over an 8-point gap in 2013 (Gonzalez, 2015).

Some studies have examined implementation features that appear to affect student discipline outcomes. Riestenberg (2003) noted that schools implementing restorative practices that received intensive training and follow-up for staff had positive results in a range of discipline outcomes. A team of researchers (Okonofua, Paunesku, and Walton, 2016) concluded that teachers can develop an empathic mindset about discipline and that these mindsets can directly affect student suspension rates. One study in Denver found that with each responsive intervention (circles, mediations, or conferences) a student received in the first semester of a school year after an office referral or suspension, the student's odds of receiving another office referral or out-of-school suspension in the spring semester were lower. This association held

after accounting for demographics (including race), general or special education, frequency and seriousness of office referrals, and school environment (Anyon et al., 2016).

School Climate

The studies on the link between restorative practices and school climate rely on self-reports from students, teachers, parents, and others. Some studies have reported links between implementing restorative practices and improved overall school climate (e.g., Mirsky, 2007; González, 2012; Jain et al., 2014), including during the first year of implementation (e.g., Jain et al., 2014) and after three years of implementation (Armour, 2016). Other studies have examined particular aspects of school climate. Researchers in Minnesota found increased feelings of school connectedness among students (McMorris et al., 2013). In Oakland, California, two-thirds of school staff reported in a survey that they perceived the restorative practices program as having improved the social-emotional development of students (Jain et al., 2014). Some studies have reported increased openness and connectedness between students and teachers and greater respect for students after implementing restorative practices (Armour, 2016; Gregory et al., 2016). Some studies report greater parent and community involvement in schools after implementing restorative practices (Mirsky, 2007; González, 2012). Finally, one study determined that students had improved problem-solving skills after having been exposed to restorative practices (McMorris et al., 2013), which might mean that they could better manage conflict with each other and with school staff.

Attendance

Most studies that have looked at the link between implementing restorative practices and student attendance have found positive associations. One comparison study found that chronic absenteeism in schools implementing restorative practices decreased by 24 percent, whereas in schools not implementing restorative practices during the same period, chronic absenteeism increased by 52 percent (Jain et al., 2014). Pre-post evaluations have found decreases in absenteeism during the implementation of restorative practices (e.g., Baker, 2008; McMorris et al., 2013). One study, however, reported a 2-percent increase in absenteeism during restorative practices implementation in one school (Riestenberg, 2003).

Student Attainment and Academic Achievement

There is limited and mixed evidence on the association between restorative practices and academic achievement and attainment. Jain and colleagues (2014) reported that graduation rates for schools that implemented restorative practices rose 60 percent, compared with 7 percent in comparison schools in Oakland, California. In another study, Norris (2009) found no difference in grade point average (GPA) between restorative practices participants and nonparticipating students.

Pursuing Equitable and Restorative Communities

Pittsburgh Public Schools (PPS) is the second-largest district in Pennsylvania, serving approximately 25,000 students in kindergarten through 12th grade in 54 schools. In July 2014, the district submitted a proposal to the National Institute of Justice (NIJ) to implement restorative practices, titled "Pursuing Equitable and Restorative Communities," or PERC. The dis-

trict argued that PPS schools needed to be safer. The district's 2013–14 student survey data demonstrated that 18 percent of students believed that they must be ready to fight to defend themselves, 35 percent felt angry about the way adults treated them at school, and 22 percent believed that student misbehavior slowed down learning. Additionally, 20 percent of all students and 28 percent of African American males were suspended during the 2013–14 school year. The district considered these suspension rates problematic for three reasons: (1) The suspension rates backed up the notion that PPS schools were not safe places, (2) disparities in suspension rates raised questions about equity (both in terms of treatment and achievement) for African American students, and (3) the overall rates suggested long-term negative impacts for a sizable proportion of PPS students, given the literature on the negative associations with exclusionary disciplinary practices.

Upon receipt of the NIJ grant, PPS contracted with the International Institute for Restorative Practice (IIRP) to implement restorative practices. IIRP is a private company headquartered in Bethlehem, Pennsylvania, that teaches, conducts research on, and disseminates restorative practices. PPS requested the IIRP-developed SaferSanerSchools™ Whole-School Change program. SaferSanerSchools™ Whole-School Change is a two-year implementation program intended to engage all school staff in restorative practices. This model (described in detail in Chapter Three) includes onsite professional development, staff professional learning groups (PLGs), and ongoing restorative practice coaching.

Study Overview

PPS asked RAND to serve as its evaluation partner. We set out to chronicle implementation, provide formative feedback, assess outcomes, examine the link between implementation and outcomes, and provide recommendations on implementation and sustainability. Our work was guided by the following three research questions:

1. How was the PERC model implemented, and what challenged and facilitated use of restorative practices?
2. What were the impacts of PERC?
3. How likely is it that PERC will be sustained in PPS?

We set out to describe implementation and determine what features of it supported teacher and staff use of restorative practices. To build on current research, we examined several ways in which PERC might affect students, teachers, and schools. Our primary interests were in classroom and school climate and suspension rates. We examined student and teacher attendance as a component of school climate. We also examined academic achievement. It is possible that if there were fewer suspensions, academic achievement might increase, due to more students having more time in school, or decrease, if disturbances in the classroom are not addressed as efficiently. We also chronicled efforts to scale and sustain PERC, and we summarize potential challenges facing both and make recommendations for the district. We also sought to identify general recommendations on implementing restorative practices in school districts.

Report Overview

In Chapter Two, we outline our study's approach. In Chapter Three, we describe IIRP's restorative practices model selected for PERC schools, as well as the context that motivated the district's decision to implement the PERC initiative. We describe implementation in Chapter Four and highlight challenges. In Chapter Five, we draw on staff self-reports to discuss buy-in to and use of restorative practices, highlighting facilitators of use. In Chapter Six, we present our causal findings on the impact of restorative practices on suspension rates, arrests, absences, mobility among schools, and student achievement. In Chapter Seven, we describe efforts to sustain and scale PERC district-wide and challenges to these efforts, and we make recommendations specific to PPS. In Chapter Eight, we conclude with recommendations for other school districts seeking to improve student discipline outcomes and school and classroom climate.

CHAPTER TWO

Study Approach

We employed a randomized controlled trial to study PERC outcomes and collect qualitative data on implementation. In this chapter, we describe the randomization approach, our data collection and analyses, and the limitations therein.

Randomization

Initial Sample Definition

PPS decided that 46 of its 56 schools would be eligible for random assignment. Five of the ineligible schools were excluded because they served special-needs populations or served students on a part-time or temporary basis. Two more were excluded because their principals also served as assistant superintendents with supervisory responsibilities over other schools, and therefore would be exposed to both arms of the experiment. Two more were excluded because the district decided those schools had a plethora of special programs already in place. The final exclusion was of the district's online academy, for which the restorative practices intervention would not have been appropriate.

Randomization Process

To enhance the chance of good balance between the treatment and control groups, we randomized within pairs of schools. We placed the 46 schools into 23 pairs based on prior outcomes, school grade configuration, and supervisory group. First, we ranked the schools on their 2013–14 values for three outcomes: suspension rates calculated as the number of suspensions during the year divided by the number of students, which creates a measure that reflects multiple suspensions per student; the Tripod classroom management scale, which is based on a student engagement survey (Tripod Education Partners, undated); and the Teaching and Learning Conditions' (TLC) Managing Student Conduct scale, based on a teacher and staff survey. We then created a principal factor of these three rankings and sorted the schools by this factor. Starting with this ordering of schools, we paired schools that were close together in this ordering and had similar grade configurations. When possible, we paired schools whose principals had the same supervisor in order to increase the likelihood that the supervisors would have similar numbers of treatment schools. We submitted the tentative pairings to PPS, which approved the list of pairs.

We performed the actual randomization using an Excel spreadsheet that generated a random number for each pair and assigned treatment status based on this random number. We shared the spreadsheet with the district. In a meeting with district and RAND representatives,

we performed the randomization several times to demonstrate the workings of the process. After all present agreed that the next execution of the process would be the accepted randomization, a representative from the district pushed the button to produce the final randomization.

Following randomization, the district decided that two of the schools that were randomly assigned to treatment status did not have the capacity to implement PERC. We agreed to exclude them from the study and to create a new pair containing the control schools of the two newly excluded schools. At a subsequent meeting of RAND and district representatives, one member of this new pair was assigned to PERC based on a coin flip. Therefore, the final sample contained 44 schools, evenly split between treatment (aka PERC schools) and control.

Table 2.1 contains the final school pairings and information on which the pairings were based. The schools that were randomized into treatment are on the left side of the table, and the schools randomized into control are on the right side. The impact estimation procedure included indicator variables for each pair to account for our strategy of randomizing within pairs.

Data Collection

We collected data for this study through observations of IIRP trainings, surveys of PERC school staff, observations of restorative practices in case study schools, and interviews of school, district, and IIRP staff. We also obtained administrative data from the district and the county. We collected data during two years of implementation. Year 1 spanned June 2015 through June 2016, and Year 2 spanned June 2016 through June 2017. We describe each data source here.

Observations of Professional Development

We observed the IIRP-provided professional development to PERC school staff, described in more detail in Chapter Three. We sat with the staff being trained and participated in role-playing and other activities as appropriate. After the training ended, we wrote field notes using a standardized template.

Surveys

The survey data in this report come from two web-based surveys administered to PPS staff in the 22 treatment schools. Through typical closed-ended response questions and a few open-ended questions (six in Year 1 and nine in Year 2), these surveys asked respondents to report on their use of restorative practices, their confidence and buy-in regarding restorative practices, and general items around school climate, safety, and discipline. RAND researchers administered the two surveys at the end of each school year in 2016 and 2017, respectively. Participants were provided a $20 gift card for completing the survey, and responses were confidential but not anonymous. The survey data were linked to administrative data provided by the district for weighting and analysis.

The sample for the surveys represents the entire population of interest: staff from all 22 treatment schools. Table 2.2 presents the response rates. The teacher response rates were higher than those for the entire school staff—around 70 percent in waves one and two. Despite these fairly high teacher response rates, any nonresponse could lead to bias in our estimates. To address this, the weighted estimates provided in this report are based on a model for non-

Table 2.1
Random Assignment of Paired PPS Schools

PERC Schools						Non-PERC Schools					
School Name	Grades	AS	Suspension Rate	Tripod	TLC	School Name	Grades	AS	Suspension Rate	Tripod	TLC
Allegheny Traditional Middle	6–8	May-Stein	1.43	36.00	0.44	Academy at Westinghouse	6–12	Walters	1.18	33.09	0.32
Langley	K–8	Huguley	0.74	43.49	0.54	Arlington Elementary	K–8	Bivins	1.32	48.16	0.41
Brashear High School	9–12	Friez	0.74	52.00	0.43	Perry Traditional Academy	9–12	Friez	1.21	49.00	0.60
South Hills Middle School	6–8	May-Stein	0.96	40.00	0.57	Schiller Classical Academy	6–8	May-Stein	1.00	42.00	0.88
Sterrett Classical Academy	6–8	May-Stein	0.70	49.00	0.83	Arsenal Middle School	6–8	May-Stein	0.83	40.00	0.96
Spring Hill Elementary	K–5	Huguley	0.69	56.01	0.63	Manchester Elementary	K–8	Huguley	0.71	41.32	0.77
South Brook Middle	6–8	May-Stein	0.46	48.00	0.81	Carrick High School	9–12	Friez	0.55	55.00	0.76
Mifflin Elementary	K–8	Bivins	0.37	52.22	0.48	Pittsburgh Montessori School	K–5	Bivins	0.38	47.77	0.67
Arsenal Elementary	K–5	Bivins	0.33	43.64	0.77	Carmalt Academy of Science and Technology	K–8	Bivins	0.12	53.93	0.97
Morrow Elementary	K–8	Huguley	0.34	49.40	0.71	Sunnyside Elementary	K–8	Huguley	0.50	52.87	0.75
Minadeo Elementary	K–5	Huguley	0.44	68.00	0.49	Weil	K–5	Huguley	0.27	49.96	0.71
Linden Elementary	K–5	Huguley	0.09	54.22	0.58	Martin Luther King Jr. Elementary School	K–8	Bivins	0.34	52.75	0.71
Westwood Elementary	K–5	Bivins	0.26	52.83	0.85	Allegheny Traditional Elementary	K–5	Bivins	0.29	55.77	0.90
Pittsburgh Science and Technology Academy	6–12	Walters	0.44	59.73	0.76	Pittsburgh Classical Academy	6–8	May-Stein	0.14	46.00	0.97
Concord Elementary	K–5	Bivins	0.06	56.49	0.59	Fulton Academy of Geographic and Life Sciences	K–5	Bivins	0.10	48.98	0.83
Phillips Elementary	K–5	Bivins	0.11	50.08	0.89	Liberty Elementary	K–5	Bivins	0.09	59.55	0.64
Helen S. Faison Arts Academy	K–5	Huguley	0.04	53.80	0.77	Roosevelt Elementary	K–5	Huguley	0.19	58.61	0.72
West Liberty Elementary	K–5	Huguley	0.03	58.56	0.79	Grandview Elementary	K–5	Huguley	0.15	62.56	0.78
Greenfield Elementary	K–8	May-Stein	0.13	61.28	0.87	Colfax Elementary	K–8	May-Stein	0.08	61.41	0.78
Pittsburgh Creative and Performing Arts	6–12	Friez	0.09	67.59	0.68	Brookline Elementary	K–8	Bivins	0.10	56.33	0.92
Beechwood Elementary	K–5	Bivins	0.03	66.24	0.93	Dilworth Traditional Academy	K–5	Bivins	0.08	56.11	0.98
Banksville Elementary	K–5	Huguley	0.03	69.00	1.00	Whittier Elementary	K–5	Huguley	0.20	70.23	0.93

NOTES: Schools in the same row were paired prior to random assignment, as described in the text. AS = assistant superintendent assigned to school. Suspension rate = number of suspensions/number of students. Tripod = Student assessment of teacher practice; Classroom Management scale. TLC = Teacher assessment of Managing Student Conduct scale on Teaching and Learning Conditions survey. Data are from SY 2013–14.

Table 2.2
Response Rate Information for RAND Online Surveys of PPS Staff

	June 2016	June 2017
Total teachers	664	636
Total teacher respondents	460	430
Total teacher response rate	69%	68%
Total staff	1,230	1,282
Total staff respondents	650	658
Overall response rate	53%	51%

NOTE: Respondents include only survey completers, where completion is defined as responding to at least 70 percent of the survey items.

response that gives more weight to staff in subgroups that were less likely to respond to our survey (see the technical appendix).[1]

Observations of Circles in Case Study Schools

We purposefully selected four PERC schools (two elementary, one middle, and one high) as case study schools. We chose these schools from among the 22 PERC schools to represent different grade levels and geographic locales across the city. We also selected them because the principals of each of the schools had expressed interest in restorative practices prior to the district winning the PERC grant and then excitement to have been selected to be a treatment school. One principal had already started a dissertation focused on restorative practices. Another had purchased a book on the topic and was implementing processes based on her reading. Moreover, for the past few years, these four principals had been lobbying the district to adopt restorative practices. Prior research has found that school leader commitment is important in engendering school-wide buy-in for and use of restorative practices among staff (e.g., Anyon et al., 2016). We intentionally selected schools in which we had a greater likelihood of observing restorative practice processes. Between November 2015 and June 2017, three trained observers paid monthly visits to the four case study schools.

We collected two types of data in these case study schools: observations of restorative practices (mainly circles) and interviews with staff members (described below). RAND team members observed proactive and responsive circles, as well as impromptu and formal conferences. We most often observed proactive circles that were being conducted to build communities within classrooms. Responsive circles and conferences address recent incidents and, as such, are conducted when necessary rather than prescheduled. Our team observed a total of 180 circles and two conferences, with 74 circles and both conferences observed in the first year of implementation and 106 circles observed in the second year. Of the circles observed, 130 were proactive, 28 were responsive, 11 had elements that were both proactive and responsive,

[1] Subgroups were based on characteristics such as gender, race, years of experience, subject, position, school, and student characteristics aggregated at the school level. These person-level weights were calculated for both waves individually as well as for respondents in both waves of surveys. The weighted responses are used to provide estimates for the entire treatment staff population.

and 11 focused on instructional content. The circles we observed lasted, on average, 15 minutes (the mode was also 15 minutes), with the longest circle lasting 40 minutes and the shortest lasting just one minute (the two restorative conferences observed each lasted over two hours). Circles included an average of 19 participants. The largest circle included 43 participants, and the smallest included four.

Interviews

To gather more in-depth descriptions of experiences than we could collect via survey, we conducted semistructured interviews. At the end of each implementation year, we interviewed three types of participants: case study school staff, IIRP leaders and coaches, and district staff leading the PERC project. We explained that the interviews were voluntary and that interviewees could decide not to answer any particular question or end the interview altogether; all interviewees were also promised confidentiality. Interviewers took notes while conducting the interview, but also audiorecorded. The interviewer or another team member listened to the recordings and updated the notes accordingly to ensure completeness and accuracy.

RAND team members conducted one-hour in-person interviews in June 2016 and in May 2017 with 66 staff from the four case study schools. In the first year, we interviewed 40 staff; in the second year, we re-interviewed 14 staff and added 26 new interviewees. We interviewed all four principals twice. We contacted all school staff via email to request volunteers for the other interviews. To fill the remaining interview slots after volunteers came forward, we asked school leaders for a mix of staff members who had participated in restorative practices throughout the year, including those who were known to be resistant to implementing restorative practices. These staff members were invited to participate in an interview. In all, the interviewees included seven school leaders, 36 teachers, and 11 other staff in different capacities (e.g., education assistant, school counselor/social worker, security officer). We asked interviewees about their experiences, perceptions, and opinions on the following topics:

- IIRP training and support
- district and school leader support
- experience with PLGs
- experience with circles and conferences
- use of other restorative practices
- perceived impacts and buy-in
- facilitators of and barriers to implementation
- prospects of sustainability.

We also conducted one-hour interviews with the IIRP project director and all seven IIRP coaches in May 2016 and in May 2017.[2] Interviews were conducted either in person or by phone, depending on availability. Interviewees were asked about their experiences, perceptions, and opinions on the following topics:

- quality and sufficiency of the IIRP support provided to the PERC schools
- observations of PLGs

[2] One coach was replaced near the end of Year 1. We interviewed the replaced coach at the end of Year 1 and the replacement coach at the end of Year 2.

- observations of school leader and district support
- challenges
- successes and impacts
- likelihood of sustainability.

We conducted one- to two-hour in-person interviews with PPS staff members overseeing PERC in May 2016 and again in May 2017. Interviewees were asked about their experiences, perceptions, and opinions on the following topics:

- goals for PERC
- responsibilities regarding PERC
- the SaferSanerSchools™ Whole-School Change program
- IIRP interactions, training, and support
- PLGs
- restorative conferences
- student buy-in
- challenges
- successes
- sustainability.

In April 2018, we interviewed 15 PPS staff members about PERC scale and sustainability. Interviewees included seven central office staff and eight school-based staff. Six of these eight were based within a PERC school. Thirteen of the 15 had completed IIRP's Train-the-Trainer sessions to become licensed restorative practice instructors.

Administrative Data

The district provided the following types of data that we used for our analysis of the impact of PERC:

- student-level data (de-identified)
  - demographic characteristics (age, race, gender)
  - economic disadvantage indicator
  - individualized education program (IEP) indicator
  - English language learner status
  - enrollment (by school and date)
  - absences (by date and reason)
  - suspensions (by date and reason)
  - test scores
- teacher-level data
  - demographic characteristics (race, gender)
  - length of service (by school)
  - national certification status
  - highest degree earned
  - Tripod survey (item and scale values)
  - value added (for teachers of tested grades and subjects)
  - composite effectiveness measure

- school-level data
  - TLC survey (item and scale values).

The district provided all of these data for two years prior to PERC (SYs 2013–14 and 2014–15) as well as for the two years during PERC implementation (SYs 2015–16 and 2016–17). We obtained data for all PPS students and staff, so that we had information on students and staff regardless of their treatment assignment. In particular, it was important to have pre-initiative information on staff and students during which time they might have been at any school in the district. It also was important to have information during the PERC initiative on staff and students who change schools in order to determine whether the initiative had an impact on mobility.

With the assistance of the district, we also obtained data from the Allegheny County Department of Human Services and the Allegheny County Juvenile Parole Office. From the Department of Human Services data warehouse, we obtained the following student-level information:

- public housing indicator
- homelessness indicator
- child welfare services as a parent indicator
- child welfare services as a child indicator
- child welfare placement indicator
- mental health services indicator
- drug and alcohol services indicator.

We obtained the data in six-month intervals for all students who had any contact with the relevant county agencies between March 2013 and August 2016. The Department of Human Services linked these data to the district's student-level data using name, date of birth, and other demographic information and then provided it to us in a deidentified fashion.

From the Juvenile Parole Office, we obtained arrest information for each student by date, arresting agency, and type of charge. This information was also linked to the district's student-level data by the Department of Human services and provided to us in a deidentified fashion.

Data Analyses

Here, we describe how we analyzed outcomes, survey, and interview data.

Outcomes Data

Our estimates of the impact of PERC on student and staff outcomes compares treatment and control groups at the end of the second year of the program (SY 2016–17). Our primary approach is an "intent-to-treat" analysis, which uses the location of students and staff in fall 2015 to define treatment status, regardless of whether they move to a different school during the two-year initiative. We focus on outcomes in Year 2 of the program in order to capture the maximum possible impact of the program during the course of the initiative. In our analysis of student-level data, we included only students who were enrolled in a treatment or control school in fall 2015, but not in the highest grade in the school. We omitted those in the highest

grade because they were not expected to have two full years of exposure to the treatment (or control) by the end of Year 2. We also omitted students who were enrolled in the district less than two-thirds of the school year. Additionally, we restricted the samples of students and staff to those individuals for which we had baseline values for the outcome.

The district and the RAND team randomly assigned treatment and control status to the eligible schools to enable us to calculate an unbiased estimate of the impact of PERC by comparing average outcomes in the PERC schools with those in the comparison schools. We improve the precision of these estimates by using a regression framework—a statistical measure that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y) and a series of other changing variables—to account for preexisting differences among the people in the sample:

$$Y_i = \beta_1 P_i + X_i \beta_2 + \varepsilon_i .$$

The variable Y_i stands for any one of the many outcomes measured in 2016–17, and i indexes individual students or staff in the sample. Table 2.3 lists the primary and secondary outcomes that we consider for students and staff, which we discuss in more detail below. The indicator variable P_i is equal to one if person i is in a PERC school in fall 2015, and zero otherwise. Therefore, the estimate of the coefficient β_1 will estimate the impact of PERC in the second year of the initiative. The term $X_i \beta_2$ represents a vector of baseline characteristics of the sample members, including baseline values of the outcome, multiplied by their associated coefficients. These characteristics are listed separately for students and staff in Table 2.3 and are also discussed in more detail below. The final term in the equation, ε_i, is an unobserved error term that represents factors that determine the outcomes of interest other than PERC and the included baseline characteristics. Random assignment of schools to the PERC initiative implies that the expected value of this error term is the same for the treatment and control groups.

The estimated relationship between the outcomes and the other terms is linear. Therefore, the estimated impact is difference in the average value of the outcome between the treatment and comparison schools, taking into account the differences in the other covariates. To account for similarities in the experiences among individuals in the same schools, we used cluster-robust techniques to estimate standard errors and calculate statistical significance.

Table 2.3 lists the outcomes for which we estimate the impact of PERC. For each outcome domain, we list the primary outcome measure and a number of secondary outcome measures. In many cases, the secondary outcomes are components of the primary outcome in that domain. For example, the primary suspension outcome is the number of days lost to suspension for out-of-school suspensions for all types of behavioral incidents, whereas two of the secondary outcomes are suspension rates for incidents involving weapons or violence and suspension rates for incidents not involving suspensions or weapons. The three other secondary suspension measures (number of suspensions, suspended two or more times, suspended) are presented in decreasing order of their sensitivity to extreme behaviors that lead to long suspensions or multiple suspensions.

Two of the items in Table 2.3 are from surveys that the district administers annually. The Tripod student engagement survey is administered annually to all students in grades K–12 and allows each student to report on their classroom experiences with a specified teacher (Tripod Education Partners, undated). Each student rates one of their teachers; all teachers are rated by at least one section of students. The district uses the survey responses as a part of their teacher

Table 2.3
Primary and Secondary Outcome Measures for Impact Analysis

	Outcome Domain	Primary Outcome Measure	Secondary Outcome Measures
Student-level analyses	Suspensions (out of school)	Days suspended during year	• Number of suspensions during year • Suspended two or more times during year • Suspended during year • Suspended during year for violence or weapons • Suspended during year for other reasons
	Arrests	Arrested during year	• Arrested during year for felony • Arrested during year by PPS police • Arrested during year by other police
	Absences	Number of days absent during year	• Absent but not suspended • Number of days unexcused absent during year • Number of days excused absent during year • Chronically absent during year
	Mobility	Changes school before or during year	• Changes school during year • Changes school before year • Moved to an alternative placement
	Achievement	PSSA scaled score (average of mathematics and reading)	• Mathematics PSSA scaled score • Reading PSSA scaled score • DIBELS scores (grade 2) • Preliminary SAT scores (grade 10)
Staff-level analyses	Teaching performance	Student assessment of teacher classroom management (from Tripod)	• Student assessment of other elements of teacher practice and classroom climate (from Tripod) • Composite student assessment of teacher practice (from Tripod) • Teacher value-added • Composite teacher effectiveness measure
School-level analyses	Teaching and learning conditions	Teacher assessment of managing student conduct composite	• Teacher assessment of other climate scales • Teacher assessment of overall climate

NOTES: PSSA = Pennsylvania System of School Assessment; DIBELS = Dynamic Indicators of Basic Early Literacy Skills; SAT = Scholastic Aptitude Test.

evaluation process. We use the average responses for each teacher to measure the impact of PERC on teacher practice and performance.

The Tripod survey items are summarized by a composite scale of teaching practice that promotes student engagement and achievement as well as subscales for seven components (i.e., "7C"):

1. Care: Show concern for students' emotional and academic well-being.
2. Confer: Encourage and value students' ideas and views.
3. Captivate: Spark and maintain student interest in learning.
4. Clarify: Help students understand content and resolve confusion.
5. Consolidate: Help students integrate and synthesize key ideas.
6. Challenge: Insist that students persevere and do their best work.
7. Classroom Management: Foster orderly, respectful, and on-task classroom behavior.

We use the Classroom Management scale as our primary outcome because it reflects teaching practices that are most aligned with the goals of PERC and with student safety. To

obtain a broader measure, we use the composite scale and the other six subscales as secondary measures in the domain of teacher performance. We also use three individual items that related to safety, climate and discipline:

1. At this school, I must be ready to fight to defend myself ("fight question").
2. The way adults treat me at this school makes me angry ("angry question").
3. Students behave so badly in this class that it slows down our learning ("slow question").

The other survey we use for an outcome measure is the Teaching and Learning Conditions survey, which is administered annually to all teachers in the district (PPS, 2018). The TLC scales include the following:

1. Time: Available time to plan, collaborate and provide instruction and barriers to maximizing time during the school day.
2. Facilities and Resources: Availability of instructional, technology, office, communication, and school resources to teachers.
3. Community Support and Involvement: Community and parent/guardian communication and influence in the school.
4. Managing Student Conduct: Policies and practices to address student conduct issues and ensure a safe school environment.
5. Teacher Leadership: Teacher involvement in decisions that affect classroom and school practices.
6. School Leadership: The ability of school leadership to create trusting, supportive environments and address teacher concerns.
7. Professional Development: Availability and quality of learning opportunities for educators to enhance their teaching.
8. Instructional Practices and Support: Data and supports available to teachers to improve instruction and student learning.

We use the Managing Student Conduct scale as our primary measure of school climate.

Table 2.4 lists the student and staff characteristics that we used as covariates when estimating the impact of PERC. In all cases, we included baseline values of the outcome being studied as covariates. We used the two most recent years of baseline outcome values for covariates. All regressions also include an indicator for each pair of matched schools that was used in the randomization process.

Student analyses also use a set of demographic and programmatic covariates obtained from the district. We use 2015 values of these variables. All are indicator variables (i.e., variables that indicate the absence or presence of some effect that may be expected to shift an outcome). Of note, we use two race indicators—white and African American—which together account for approximately 86 percent of the students. The omitted group is all other races, including students who self-identify with multiple races or who do not indicate a race. The IEP indicator represents students with an IEP who are not identified as gifted. The over age indicator is equal to one for all students whose age is greater than the mode age for their grade, which includes about 13 percent of students. We also include an indicator for the student's grade in school as of SY 2016–17.

Table 2.4
Student, Staff, and School Covariates

	Category	Covariates
Student	Outcomes from SYs 2013–14 and 2014–15	• Values of dependent variable from two years immediately prior to initiative • In some cases, pre-initiative measures for additional outcomes from the same outcome domain also are included
	Demographic and programmatic indicators from PPS administrative data (all measured in fall 2015 except grade in school)	• White • African American • Male • Economic disadvantage • English language learner • IEP • Gifted • Magnet program • Overage for grade • Grade in school
	Human service indicators of service anytime up through August 2015 from Department of Human Services administrative data	• Public housing • Homelessness service • Child welfare service as parent • Child welfare service as child • Child welfare placement • Mental health service • Drug or alcohol service
	Experimental design indicators	• Matched school pair
Staff	Outcomes from SYs 2013–14 and 2014–15	• Values of dependent variable from two years immediately prior to initiative • In some cases, pre-initiative measures for additional outcomes from the same outcome domain also are included
	Demographic and professional indicators from PPS administrative data	• African American • Male • Bachelor's degree • Length of service 5 to 15 years • Length of service greater than 15 years • Master's degree or higher • National Board Certification (teachers only)
	Experimental design indicators	• Matched school pair
School	Outcomes from SYs 2013–14 and 2014–15	• Values of dependent variable from two years immediately prior to initiative
	Experimental design indicators	• Matched school pair

Staff analyses use a set of indicators of staff characteristics for covariates. We use all of the demographic and professional indicators listed for staff in Table 2.4 for all staff, except the National Board Certification indicator, which is reserved for teachers.

As a part of our impact analysis for each outcome, we checked to make sure randomization had created a division between treatment and control groups that was balanced on the prior values of the outcome. In our results section below, we report the difference in average prior outcomes as a fraction of the pooled standard deviation of the outcome calculated using data at the same level as the analyses. What Works Clearinghouse (WWC, 2017b) requires that this difference be less than one-quarter of a standard deviation for the analysis to be eli-

gible to meet its "Group Design Standards with Reservations" and less than 5 percent of a standard deviation to be eligible to meet its "Group Design Standards Without Reservations."

We also examined overall and differential attrition from the sample that was present at the beginning of the initiative in the fall of 2015. We report overall and differential attrition, as well as the expected bias from this attrition, using both optimistic and cautious assumptions (WWC, 2011).[3] In our situation, any student who is enrolled in the district less than two-thirds of the school year or who is missing outcome data is considered to be a part of attrition. Given the many other factors that drive student and staff mobility, we think that the optimistic assumptions are most appropriate for determining whether attrition is sufficiently small to make the impact estimate valid.

Although we test multiple hypotheses in this study, we have one primary outcome in each outcome domain for which we test the impact. Following WWC guidance (2017a), the primary outcome is for the most comprehensive sample and uses the most comprehensive measure in the domain. The other outcomes are secondary and their analyses are exploratory. Following WWC guidance, we do not adjust for multiple comparisons across domains nor for secondary outcomes.

These exploratory analyses of secondary outcomes, listed in Table 2.3, allow us to examine the differential impact of the initiative for demographic subgroups. In general, we examine the impact by student race (white, African American), IEP status, and poverty status.

We estimated two types of mediation models. First, we estimated an exploratory model in which we allowed teachers' reported usage of restorative practices to mediate the impact of the initiative on their classroom management practices as measured by Tripod student survey responses. (The usage measure is described in the next section.) The sample for this model only includes teachers for whom we have self-reported usage measures via our teacher survey (TLC). Because participants clearly choose whether to complete the survey and the extent to which restorative practices are used is self-reported, the estimates from this model should not be interpreted as causal.

We also estimated models of mediation by dosage for both students and staff. For this purpose, we defined dosage as the fraction of the two-year intervention period that the student or staff member spent at a PERC school. Our main intent-to-treat model reflects an implicit assumption that each person remains at the school to which he or she was assigned at the beginning of the intervention in fall 2015. This mediation model reflects an implicit assumption that the impact of PERC is proportional to the time spent in a PERC school. We estimated this model both with ordinary least squares and with two-stage least squares, using the initial assignment as an instrument for the dosage.

Our impact estimates are presented in Chapter Six, along with statistics regarding baseline equivalence and attrition. We present all impact estimates, regardless of whether they meet the threshold for baseline equivalence, acceptable attrition, or statistical significance. Estimates that do not meet the baseline equivalence and acceptable attrition are shaded out in the tables and are not considered valid evidence regarding PERC impact. We indicate three levels of statistical significance with various symbols in the tables, with a single asterisk representing the conventional level of statistical significance at the 0.05 level.

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[3] WWC (2017b) requires expected bias to be less than 0.05 of a standard deviation. It uses the cautious assumptions if it judges that the intervention might be the cause of much of the attrition and uses the optimistic standards otherwise.

Survey Data

Survey data were cleaned in R (v3.3.0) and analyzed in R (v3.3.0) and STATA (SE 14.2). The analysis included the creation of composite indices, survey item results overall and by subgroups, estimation of index means overall and by subgroups, estimation of change over time in survey items and indices overall and by subgroups, and the relationship between various survey items and indices. Identification of the survey measures and descriptive information is detailed below.

The survey included a page of items that asked participants about their opinions on restorative practices (see the technical appendix for the entire surveys). Response options for all of these items were on a four-point Likert scale (strongly disagree, disagree, agree, strongly agree), and the items were developed by RAND researchers for this survey. The items address different topics, such as a person's belief that restorative practices would be beneficial, a person's confidence using restorative practices, and whether or not student behavior changed. Since there was no prior administration of these items and no prior hypothesis about how they might group together, we used exploratory factor analysis (EFA) to identify strongly related items. Through EFA, we identified four composite indices and implemented them as survey measures. Based on the item content of each grouping, we assigned descriptive labels to each index: buy-in, confidence, perceived impact on culture, and perceived impact on handling conflict. Table 2.5 presents each index, its composite items, range, and internal reliability (Cronbach's alpha). We examined these measures across schools, subgroups, and years, which provided information on how staff attitudes and perceptions changed, or did not change, throughout implementation. Results are presented in Chapter Four.

The survey also included a set of items related to IIRP's 11 essential elements. In Year 1, a subset of these items was administered corresponding to the essential elements that had been covered in training and PLGs that year. In Year 2, all items were administered to school staff.

Table 2.5
Composite Indices for Survey Data Analysis

Index	Items	Range (low–high)	Reliability (alpha)
Buy-in	• I believe that restorative practices can help to improve student behavior • Learning restorative practices is worth my time • Adopting restorative practices is worthwhile for my school	1–4	0.91
Confidence	• I am confident that I know the purpose of restorative practices • I am confident that I know the restorative practice methods • I am confident in my ability to use restorative practices with the majority of students in my school	1–4	0.85
Perceived impact on culture	• Student behavior in my school has generally improved this year • Student behavior in my school has improved as a result of restorative practices • The school culture/climate has generally improved this year • The school culture/climate has improved as a result of restorative practices	1–4	0.94
Perceived impact on handling conflict	• The way that adults handle conflicts with students has improved as a result of restorative practices • The way that students handle conflicts with other students has improved as a result of restorative practices • The way that adults handle conflicts with other adults has improved as a result of restorative practices	1–4	0.85

These items asked respondents to indicate the frequency with which they performed certain behaviors or certain restorative concepts related to each element. For example, "I use affective statements informally throughout the day" and "In the circles, only one person speaks at a time." Response options were provided on a five-point scale: never, rarely, sometimes, often, always. These items had been developed and administered in prior interventions by IIRP and were included in part to give IIRP a point of familiar feedback.

From these items, we selected a subset of 30 items across seven essential elements that pertained directly to performing restorative behaviors (e.g., affective statements, proactive circles, impromptu conferences and restorative questions, responsive circles). Our intent was to establish a measure of general use of restorative practices. Not all survey respondents saw all of the items. In particular, items about running circles were masked behind survey skip logic. This was partly due to the fact that the survey was administered to all school staff, and not all staff had the opportunity to engage in circles. For example, school security or food service employees were not expected to run proactive circles or responsive circles but may have had opportunities for impromptu conferences. To avoid treating lack of opportunity and differential expectations on staff as "low usage," we first standardized responses to these 30 items within their essential element group and then averaged the standardized measures together.[4]

We also coded and analyzed responses to the open-ended survey questions using Dedoose 7.6.21 (SocioCultural Research Consultants, 2016). We applied the same extensive coding scheme used for coding interview data described below.

Interview Data

Two researchers coded the interview data using Dedoose 7.6.21 (SocioCultural Research Consultants, 2016). Our top-level codes and overall coding scheme structure reflected the key topics of our interview protocols. To capture how PERC was implemented, for example, we developed codes for each of the major restorative practices (e.g., circles, conferences). We coded, for example, the frequency with which teachers conducted proactive and responsive circles, and the fidelity with which conferences were implemented. With respect to challenges to and facilitators of implementation, we began with factors that, from prior literature and evaluation experience, we believed would be important, but we also allowed for emergent codes (Strauss and Corbin, 1994). Our final code list included factors such as staff buy-in, staff's confidence or sense of self-efficacy, student participation and buy-in, class size, and time needed to implement the model and its practices. For perceived impacts of PERC, we expected impacts on the school climate, on teachers, and on students. We also added codes to capture impact on school policy and routines, and on families. Finally, our coding scheme included a code for themes

[4] This approach has two benefits. A standardized measure provides information about where a respondent stands relative to all other respondents, which is useful in this case because there is no known benchmark of use and our main interest is to understand variation. Second, by averaging first at the element level rather than across all 30 items, we did not penalize staff members who were not provided the opportunity to engage in certain restorative practices. This index can be thought of as an indicator of the extent to which staff who were in a position to use restorative practices did so. Our main concern with this approach was that the standardized essential element averages contributed differently to different school staff. For example, a classroom teacher's index would receive one-sixth weight from their affective statements items, whereas a school security officer would receive one-quarter weight from those same items. This is only problematic if the entire set of items might not be capturing the same construct. Correlational and EFA analyses concluded that this is not the case and all of the items do appear to capture the same main factor. However, we ran sensitivity analyses using a version of the index composed of only the items provided to all survey respondents and found no change in our results. The results presented in this study use the full set of information available for each respondent.

related to sustainability of restorative practices. We used the same coding scheme for interviews with all participants—staff, school leaders, district leaders, and IIRP coaches and leaders.

Analysis involved conducting coding queries and thematically coding or grouping the results of the queries. Thus, following recommended qualitative analysis procedures (Miles and Huberman, 1994; Yin, 2015; Creswell and Poth, 2017), the two coders and analysts engaged in multiple readings and iterative coding. Moreover, the full team met regularly to discuss emergent themes. In conducting the analyses and summarizing findings, we noted the number of interviews in which a theme surfaced, to guard against giving undue weight to an idea that is strongly endorsed, but only by a small number of participants. We also accounted for the interviewees' roles, as in whether particular themes reflected the views of school staff, school leaders, district leaders, and/or the perspective of IIRP coaches and leaders.

We followed multiple established procedures to help establish credibility and confirmability of the qualitative component of the research (Lincoln and Guba, 1985). To address credibility with respect to data collection, we engaged in prolonged engagement (Lincoln and Guba, 1985) with the study context and the participants. Specifically, our data collectors established a two-year relationship with the case study schools, visiting on a regular (e.g., monthly) basis. During coding, we generated a codebook to guide and make transparent the data analysis process; the primary coder used the codebook to train the second coder. Early in the coding process, the two coders independently coded two full interview transcripts and met to compare code applications, discussing discrepancies until they were resolved. Throughout the coding process, the coders communicated about issues related to code definitions and difficult coding decisions. Finally, our analytical procedures involved multiple methods of triangulations, including triangulation of methods (i.e., use of open-ended survey questions and interviews) and triangulation of sources (i.e., comparing viewpoints of multiple participants—staff, school leaders, district staff, IIRP coaches and leaders) (Denzin, 1978). We also engaged in regular team debriefings wherein we discussed emerging hypotheses and checked for underlying observer or analyst assumptions or biases (Lincoln and Guba, 1985).

Limitations

It is important to describe what this report represents. We have evaluated a specific restorative practices program implemented in a particular group of schools. However, the district offered additional support on restorative practices, over and above the program prescriptions, such as monthly meetings for school leaders and book clubs for parents. Some of the treatment schools also offered additional support to staff, such as training on recognizing and responding to trauma. These augmentations might not be present in other tests of the studied program.

As one might expect, the use of restorative practices varied among individuals. Although, on average, use was high, not every staff member used the practices. More importantly, we lack measures of student exposure. We do not know how many or which students experienced restorative practices, nor to what degree.

It is also important to acknowledge the study timeframe. Some studies of restorative practices span three to seven years. Here, we are examining outcomes after two years of implementation. In interviews, IIRP coaches opined that it takes at least four years of implementation to see impacts from the use of restorative practices. They made these statements before we examined outcomes, based on their experiences in other schools. We do not know of an ideal

number of implementation years necessary to achieve desired outcomes, but two years may be insufficient.

It is also important to acknowledge the study setting and scope. This evaluation is most relevant for midsized urban school districts; our findings might not apply to other settings. Despite the study's fairly large scope, it does not address all questions of potential interest. We lack a direct measure of student opinions and rely on school staff to provide us their opinions of student reactions and engagement. And we were unable to access referral data. The use of restorative practices may be affecting the number of student referrals to the office based on low-level behavior disturbances. In PPS, the referral process varies from school to school and is primarily paper-based. We could not reliably collect or count these referrals. In addition, our interviews represent a very small percentage of PERC school staff (approximately 6 percent); interviewees' perceptions and experiences cannot be generalized further.

There are limitations that arise from the study design and data availability. Randomization does not guarantee treatment and control samples that are perfectly equivalent on baseline characteristics, and this can be a particular limitation for analysis of the impact on subgroups of the population. In particular, this study is limited by lack of baseline equivalence for students in grades 9–12. We also have limited information about the connections between particular students and staff, which limits our ability to investigate whether student outcomes improved when staff used restorative practices more fully.

Finally, we do not know about restorative practice use in the control schools. We assume that the business as usual in our 22 control schools might have included restorative practices. We did not conduct surveys in these schools to compare and contrast their context to those of the PERC schools.

CHAPTER THREE

The PERC Program and District Context

In this chapter, we describe the selected restorative practices program implemented in PPS, the schools in which it was implemented, and relevant aspects of the district context.

SaferSanerSchools™ Whole-School Change Program

The IIRP's SaferSanerSchools™ Whole-School Change program is grounded in what IIRP has called 11 essential elements. Table 3.1 presents these elements and a definition of each taken from IIRP's program literature (IIRP, 2011). As the program name implies, all staff in a school building are to learn to enact almost all of these essential elements (restorative conferences, for example, might only be run by a few school administrators), changing the climate of a school.

A few themes run through these elements, including the importance of communications, responsibility, restoration, and separating the "deed" from the "doer." Students (and school staff) communicate with each other both to build positive environments and respond to disruption. Those who do the disrupting are to learn to take responsibility for their actions, while those affected learn to describe the impact on them. Those who commit harm are also expected to make reparations, which may include issuing a formal apology or doing some type of service work in the school where the incident happened. It is also important to note that a student should still be suspended when committing an offense that necessitates a suspension based on district or school policy; students are still to be held accountable for their actions and punished when warranted. But as these consequences are applied, school staff are taught to separate the harm that was done from the person who did it, being careful not to imply that the person, even if suspended, is a bad person who does not belong in the community.

These practices range from informal ones (e.g., using affective statements) that build community to formal practices (e.g., restorative conferences) that are used in response to incidents. The IIRP recommended that school staff spend about 80 percent of their time on the informal, proactive practices and 20 percent of their time on the formal, reactive practices. For example, proactive circles are intended to build community and to give students and teachers the opportunity to gain familiarity and comfort with the circle process.

Although the goal was for all school staff to understand these elements and for many to become proficient, school leaders could prioritize some elements over others or pace implementation based on school needs. Moreover, the program did not prescribe how often circles should be used. IIRP trainers suggested that circles could be used at the start of the day or class period to "check in," at the end of instruction to "check out," or at any time throughout instruction when the class needed to come together and refocus.

Table 3.1
The 11 Essential Elements of the SaferSanerSchools™ Whole-School Change Program

Element	Definition
Affective statements	Personal expressions of feeling in response to specific positive or negative behaviors of others
Restorative questions	Questions selected or adapted from two sets of standard questions designed to challenge the negative behavior of the wrongdoer and to engage those who were harmed
Small impromptu conferences	Questioning exercises that quickly resolve lower-level incidents involving two or more people
Proactive circles	Meetings with participants seated in a circle, with no physical barriers, that provide opportunities for students to share feelings, ideas, and experiences in order to build trust, mutual understanding, shared values, and shared behaviors
Responsive circles	Meetings with participants seated in a circle, with no physical barriers, that engage students in the management of conflict and tension by repairing harm and restoring relationships in response to a moderately serious incident or pattern of behavior affecting a group of students or an entire class
Restorative conferences	Meetings in response to serious incidents or a cumulative pattern of less serious incidents where all of those involved in an incident (often including friends and family of all parties) come together with a trained facilitator who was not involved in the incident and who uses a structured protocol
Fair process	Outlines a set of transparent practices designed to create open lines of communication, assure people that their feelings and ideas have been taken into account, and foster a healthy community as a means of treating people respectfully throughout a decisionmaking process so that they perceive that process to be fair, regardless of the outcome
Reintegrative management of shame	Process of listening actively to what a shamed person has to say, acknowledging the feelings of the shamed person, and encouraging the shamed person to express his/her feelings and to talk about the experience that brought about the shame response
Restorative staff community	A community that models and consistently uses restorative practices to build and maintain healthy staff relationships
Restorative approach with families	Consistently uses restorative practices in interactions with students' family members
Fundamental hypothesis understandings	Understanding the fundamental hypothesis that human beings are happiest, healthiest, and most likely to make positive changes in their behavior when those in authority do things with them rather than to them or for them

SOURCE: IIRP, 2011

By using restorative practices, students and staff were to learn more about how their actions affect others. This understanding, in turn, should help students recognize why a particular behavior is inappropriate or hurtful, and why they are being held accountable for their behavior. Both students and staff were to develop greater empathy for others, as they learned about how their behaviors affect those around them. This, in turn, was to improve relationships and the classroom and school climate. Better relationships with others should lessen misbehavior toward them. Less misbehavior would mean fewer suspensions and absences and a safer school environment. Fewer suspensions and absences should increase instructional time for all students, which might lead to improved academic outcomes and attainment, such as high school graduation rates.

We were unable to measure all aspects of this program and its intent. We did not interview or survey students and do not know the extent to which they became more aware of their

impact on others or more empathetic. We do have measures of classroom and school climate, but our measures of misbehavior are limited. As noted in the limitations section, we do not have measures of referrals, which could have provided a more complete picture of changes in students' behaviors than do suspension rates alone. Many more students are given referrals for inappropriate behavior than are suspended and the use of restorative practices might have decreased referral rates.

Treatment Schools

As described in Chapter Two, in April 2015, the RAND team and PPS representatives jointly assigned 22 schools to receive this treatment, the SaferSanerSchools™ Whole-School Change program, and 22 schools to serve as control schools. Table 3.2 summarizes the number of treatment schools by grade level. This number of schools was necessary to have a good chance of determining a difference between the treatment and the comparison schools. PERC schools are distributed across the district's three regions: five in the North/West, eight in the South, and nine in the East. The comparison schools were considered to be conducting "business as usual." Although they were not provided the SaferSanerSchools™ Whole-School Change program, they might have adopted a similar program focused on restorative practices.

The principals of the 22 treatment schools neither opted in nor could opt out. Although many had expressed hope that they would be selected to implement the SaferSanerSchools™ Whole-School Change program, many had not, and some were unaware of the opportunity. According to our interviews, reactions to being selected ranged from appreciation to anger. However, by the end of the first year of implementation, all of the school leaders responded in our survey that they had bought into the need for restorative practices. In the beginning, after these schools were selected, there was no centralized process for working with the 22 principals to set expectations for the first year of implementation. Principals would not learn about their roles until they first met with their IIRP coaches, as described in the next chapter.

Table 3.2
PERC Treatment Schools, by Grade Level

Grade Configuration	Number of Treatment Schools
K–5	11
K–8	4
6–8	4
6–12	2
9–12	1
Total	22

District Context

As noted above, the district was motivated to implement restorative practices to reduce suspension rates overall and the disparity in suspension rates between white and African American students. The PPS Office of Student Services oversaw implementation, which included hiring a new project manager. Throughout the course of the two-year grant, there were (at least) three changes in the district that might have affected implementation and/or suspension rates overall. First, the Office of Student Services updated the district student code of conduct to emphasize the use of restorative practices in response to some instances of misconduct. Although the control schools would not have received the SaferSanerSchools™ Whole-School Change program, those school leaders might have learned more about restorative practices, and implemented some of them, in response to this change. Second, a new superintendent was hired in 2016. According to our interviews, he shared the goal of reducing suspension rates and instituted a new agenda item for each cabinet meeting necessitating that principals' supervisors report all of the suspensions that had happened in their schools since the last meeting, along with an explanation for each. The reported intention was that more-intense scrutiny of suspensions might result in fewer overall. Indeed, respondents to our PERC survey reported in each of the two surveyed years that there were fewer students who had been suspended than had been the case the year before for the same misbehavior. Third, in December 2017, the district board voted to ban suspensions for nonviolent offenses in grades kindergarten through 2nd grade. Although this vote came after the second and final year of PERC implementation, there were several discussions throughout the district on this topic leading up to the vote, which might have affected overall suspension rates. Nonetheless, because this evaluation compares the PERC schools with the control schools, even if suspension rates decreased across the district, we might still expect to see a steeper decline in the schools implementing the restorative practices program.

CHAPTER FOUR

PERC Implementation

This chapter examines our first research question: How was the PERC model implemented, and what challenged implementation? We discuss the facilitators of the use of restorative practices in the next chapter.

We describe implementation of the SaferSanerSchools™ Whole-School Change program. We note here that our goal is not to measure implementation fidelity. Measuring fidelity in education interventions works best when the intervention has a strong research base and the delivery of the intervention can be standardized. It is more complex when, as is the case here, the intervention requires culture and behavior change in the setting in which it is implemented. In these cases, implementation requires new processes, tools, knowledge and skill development, and shifts in how participants think, act, and work together (Bryk, 2016). These kinds of changes make significant demands on a school or school system, and, by necessity, the intervention and its implementation are adapted, at least in small ways, to the local setting. In fact, significant adjustments to an original intervention design may be required to produce the same results when implemented in a new or different context (McDonald et al., 2006; Quinn and Kim, 2017). A straightforward measure of fidelity fails to capture the changes the intervention underwent in its context, or why they were made. It especially misses key insights into how and why an intervention might work well in a local context. Therefore, we describe implementation as we observed it, and address challenges and facilitators based on our data.

It is important to note that the IIRP model was not only adapted to the district context but was augmented. The district's program manager, for example, held monthly meetings for school leaders and book clubs for parents. Some of the schools also offered additional support to staff, such as training on recognizing and responding to trauma. Because the program was both adapted and augmented, this study cannot be considered an evaluation of the IIRP program, but, rather, an evaluation of a particular district's approach to implementing restorative practices. We describe this implementation in detail to guide other districts that might be interested in following this approach.

Training and Support

Staff in the PERC schools received training on and support in implementing restorative practices in several ways. IIRP provided four days of professional development; all PERC staff were asked to attend two of these days, and the other two were voluntary. Throughout the two-year period, IIRP distributed books on restorative practices to all PERC school staff and distributed videos, posters, and other supporting materials to each school. Each PERC principal was

assigned an IIRP coach to support the school during the two-year implementation period. PERC principals were asked to establish restorative leadership teams (RLTs), and the coaches were asked to schedule monthly calls with these teams to monitor progress and address challenges. The coaches also visited each of their schools at least twice during a school year. The district was charged $3,400 per coach for each full day of coaching (or training). All PERC school staff were asked to participate in monthly professional learning groups (PLGs). The district's PERC project manager provided additional support to the PERC schools. We describe each source of support in the following sections.

Professional Development Provided by IIRP

IIRP-certified trainers provided four days of professional development to PERC school staff: Day 1: Introduction to Restorative Practices; Day 2: Restorative Circles; Day 3: Restorative Conferences; and Day 4: Family Engagement. During the Day 1 training, participants learned the fundamental premises of restorative practices, i.e., that students (and staff) are happier and more productive when they work in concert to do things *with* each other, rather than *to* or *for* each other. School staff were given an overview of the 11 essential elements described in Table 2.1. During the Day 2 training, participants learned to facilitate restorative circles. Circles can be held proactively, to build community, or in response to conflict and challenges in the classroom or school. Participants joined in circles with each other, taking turns facilitating. During Day 3 training, participants learned to facilitate restorative conferences, which are used to respond to conflict following an IIRP-developed series of steps and formal script. During Day 4 training, participants learned how to explain restorative practices to family members and be restorative when interacting with students' families.

The first two sessions occurred in June and then August 2015 and were mandatory for most PERC school staff; the second two days were offered in August 2016 and were voluntary. Many principals attended these latter two sessions or nominated other school leaders for whom the training was most germane. In both years, most sessions took place in PERC schools with staff in groups of 20 to 40 people. Throughout the two-year implementation period, make-up sessions were provided for new staff and for those who had missed earlier sessions; some of these were provided in hotel space or district conference rooms. Table 4.1 provides attendance data for the four sessions, based on a total of 1,303 staff in the PERC schools overall, which is the highest number of staff we observed over the two-year period.

In both RAND surveys, we asked PERC staff about the professional development training they received from IIRP. All staff were asked about training in Year 1, because the initial trainings were required for most school staff and available for all. About half (47 percent) of staff who reported attending the IIRP professional development in Year 1 agreed that it was

Table 4.1
Total Number and Percentage of PERC School Staff Participating in IIRP Training Over the Two-Year Implementation Period

	Introduction	Circles	Conferencing	Family Engagement
Total number of PERC school staff participants	879	951	116	25
Proportion of school staff who participated	63%	68%	8%	2%

sufficient training to begin implementing restorative practices (28 percent disagreed, 25 percent neither agreed nor disagreed).

Restorative Leadership Teams and Monthly Calls

Each of the 22 PERC school principals was to create a restorative leadership team (RLT) that would lead implementation in the school. The team was to meet with the school's IIRP coach twice per month by phone to discuss implementation progress and challenges. The number of people on the RLT in each school varied quite a bit. In some schools, for example, the principal assigned one person to be the only RLT member and liaison to the IIRP coach. In other schools, the principals created larger teams.

The IIRP coaches and RLT members agreed that forming these teams and having the bimonthly calls were not productive. One school staff member reported, "They weren't useful. . . . People . . . found [RLTs] to be super pointless and unhelpful." The coaches reported that they struggled to build relationships with these teams by phone. After a while, most of the coaches stopped holding regular RLT meetings and let the schools know they could just call when they needed support. For example, one coach said that RLTs "fell off the radar. . . . I didn't feel like [PERC staff] were getting any value from these calls."

Professional Learning Groups

The initial expectation from IIRP was for PERC schools to hold two PLGs per month. PLGs are similar to professional learning communities, and the intent was for small groups of about 12 teachers and other staff to come together twice per month to discuss pre-assigned readings on restorative practices and implementation experiences. IIRP provided a set curriculum designed to engage staff in learning the essential elements through exercises, reading assignments, and unstructured discussion. However, only about one-quarter of staff in Year 1 and 13 percent of staff in Year 2 reported meeting that two-PLG-per-month threshold. Table 4.2 is based on survey data and shows how many staff attended any PLG and, within the group of staff who did attend, how often. The table presents these proportions for all staff and for only classroom teachers, because some schools used teacher development time for the PLGs, which is not available for all staff. Notably, there was a large decrease in the percentage of staff that engaged in PLGs from Year 1 to Year 2. Most staff who did attend went to only one PLG each month, and about one-third of staff who attended went to less than one PLG per month.

Table 4.2
Proportion of PERC Staff Attending Professional Learning Groups by Year

	Year 1		Year 2	
	All Staff	Classroom Teachers Only	All Staff	Classroom Teachers Only
Attended a PLG throughout the year	81%	90%	62%	73%
Of those who attended a PLG…				
2 PLGs per month	24%	24%	13%	13%
1 PLG per month	46%	45%	52%	54%
Less than 1 PLG per month	30%	31%	35%	33%

Survey results indicate that the PLGs contributed positively to the implementation of restorative practices. In Year 1 and Year 2, 71 percent and 68 percent of staff, respectively, indicated that the PLG agendas provided by IIRP were clear and that they were able to cover all the material in the agenda. Moreover, 64 percent of staff in Year 1 and 59 percent of staff in Year 2 reported that the PLGs helped them better understand restorative practices. As discussed below in more detail, stronger understanding of restorative practices was related to higher use of restorative practices. A majority of staff—51 percent in Year 1 and 55 percent in Year 2—also reported that the PLGs helped them to better implement restorative practices. This was likely a result of idea-sharing and peer issue resolution that occurred during the PLGs. As one staff member noted, "If I had to depend on the materials provided, I could never do it. . . . Splitting up and actually acting out and working out what we were going to do in the classroom helped immensely." Bringing staff together to share different approaches and examples of using restorative practices may have facilitated adoption of restorative practices.

Many other interviewees described benefits from the PLGs, and some described challenges as well. Interviewees found it helpful to hear colleagues talking about how they were implementing restorative practices. One noted, "Knowing you are not alone . . . is helpful and just hearing other people's suggestions about how they worked that out and the lens they use can turn it around for you." Other interviewees described how the PLGs had a positive impact on staff relationships. Some staff likened the meetings to "a team-building process." This idea is supported by survey data, in which about 55 percent of staff in Year 1 and Year 2 indicated that the PLGs strengthened their relationships with their colleagues. Some interviewees described challenges associated with the PLGs. One noted that they became repetitive (e.g., addressed circles too often). One teacher found them to be "inauthentic" and "forced."

Coach Visits

The IIRP coaches were expected to visit their schools twice per year. The coaches met this expectation, with some exceeding it if the school principal requested additional visits. On site, the coaches met with school leaders; modeled restorative practices; discussed complementary methods, such as mindfulness and meditation; observed circles in classrooms; and met with staff who requested support on implementation to discuss individual circumstances, to problem solve, and to suggest strategies. One interviewed administrator, for example, shared that she met with the coach and talked about a specific scenario involving a student who had been suspended. The coach was able to guide the school on how to start a restorative conference for this student, to accompany the suspension.

Survey data indicate that an estimated 45 percent of staff in Year 1 and 55 percent of staff in Year 2 interacted with IIRP coaches outside of scheduled professional development trainings. The nature of the interaction varied from a simple exchange of information to formal modeling or observation by the coach of a school staff member implementing a practice, such as a circle. IIRP coaches provided additional information about or answered specific questions about restorative practices to an estimated 38 percent of staff in Year 1 and 28 percent of staff in Year 2. IIRP coaches modeled restorative practices outside of scheduled trainings (for example, on coaching visits) for about a quarter of all staff. Fifteen percent of staff received feedback from IIRP coaches based on observations.

Most interviewees reported that the coaching visits were helpful but were not as well structured as they could be and that they were not as frequent as many wanted. One interviewee described the impact of the coaching as the following:

> It created an awareness for our staff as far as what the restorative practice should look like in our building. It also addresses an additional support for us to have a neutral person to work through scenarios so people have options and can reflect on their own practice. If something is not effective, we need to have some other options. And how we can go about dealing with some difficult situations that may occur during the course of the school year. And sometimes staff members need to see that from the outside versus someone they work with on a daily basis.

In terms of the structure for the visit, the coaches reported that they wanted the school leaders to determine what was most needed, while the interviewed principals reported that they did not know what they should or could ask of a coach during the visit. In some instances, we observed a coach sitting alone in a room waiting for staff members to visit with questions, only to end up meeting with one or two people over several hours.

In terms of the frequency of the visits, one administrator, for example, expressed these thoughts about the coaching visits:

> [The visits were] too sporadic. . . . When I think of coaching, it is cyclical, it is purposeful. It understands the strengths and areas of growth around something, and it moves the learning and the growing in that way. So, when you have a coach just coming a few times a year that's not possible.

The coaches agreed, as typified by the following three quotes from three different coaches:

- When people learn something, if they don't see you again until October, that's a lot of time for stuff to go wrong [and there are] missed opportunities to build on things that went right.
- Lack of our visits worry me. There are people on the fence and we can't interact with them. More visits would have led to more interactions. Leads to some people giving up. Change doesn't happen overnight and can't remind people of this if not there. Culture can't change in three months just because of two good trainings. I worry about perseverance. When it looks like RP [restorative practices] isn't working.
- As a counselor, I meet with people for an hour once a week. Now we're talking a whole school and onsite consultation twice a year? That's laughable.

IIRP Materials

IIRP disseminated materials to schools to support ongoing implementation, such as restorative practices posters, talking pieces to be used in the circles, and videos of classroom teachers and school leaders using restorative practices. Additionally, each staff member was to receive two restorative practices books and a reference card with the restorative questions listed. Based on survey data, 91 percent of staff in Year 1 and 82 percent of staff in Year 2 reported receiving materials from IIRP. Among them, over half agreed the materials were helpful in implementing restorative practices and about one-quarter disagreed with that statement.

PPS Support for PERC

In addition to the support provided by IIRP, the project manager at the district supported the PERC schools. For example, because the district wanted to decrease the disparity in suspensions by race, and because the IIRP program did not directly address race, the project manager

created a crosswalk between the district's training on diversity and restorative practices titled "Restorative Practices Through an Equity Lens." As other examples, she

- Developed a SharePoint site with resources and shared such resources directly with schools when asked.
- Regularly communicated with PERC principals. She held roundtables with principals and other school leaders each month to discuss implementation, with about seven people attending each time. She also met with some principals one-on-one every month.
- Developed an advisory board composed of community partners, district staff, PERC school staff, IIRP coaches, and RAND representatives and held quarterly meetings.
- Met with students in PERC schools.
- Presented to and held roundtables with community partners and parents.
- Led some of the PLGs in some schools.
- Led or facilitated additional training on topics related to restorative practices such as identifying school stress triggers and aggression replacement.

About half of PERC school staff took advantage of these resources. About 85 percent of those agreed or strongly agreed that these resources were helpful. One interviewee noted,

> [The project manager] definitely provided some tangible items for me. Like, different community building resources. There is a deck of mindfulness cards I have. I have another deck of cards for girls to play. . . . And pieces for circles, stress relievers, and distractors. I love stuff like that, they help so much this year. We liked everything she sent.

Along with district support, it was expected that school leaders would support the implementation of restorative practices in their schools. This included logistical support in connecting staff with IIRP coaches, passing district resources to staff, and making time for PLGs, as well as direct support in terms of modeling the use of restorative practices, observing this use among school staff, and providing feedback. About half of surveyed staff reported that school leaders provided additional information and answered specific questions about restorative practices, 37 percent reported that leaders modeled restorative practices, and 18 percent reported receiving feedback on their use of restorative practices based on observation. Most (73 percent) staff thought that their school administration supported restorative practices in both years. Only seven percent of staff across all schools reported that school administration did not support the initiative at all, and this was driven primarily by three schools, at one of which 42 percent of staff reported that school leaders did not support restorative practices.

Additional Implementation Augmentations

We described some of the augmentations to the SaferSanerSchools™ Whole-School Change program above, such as the project manager providing additional training on aggression replacement. There were other augmentations, as well. For example, several PPS staff attended conferences held by IIRP, at which they would discuss their own experiences and learn from the experiences of others. At least one IIRP coach conducted training on topics such as mindfulness, which were related to restorative practices but were not part of the specific program being implemented. At some schools, students formed clubs based on the use of restorative practices and would volunteer to enter into classrooms to run circles in response to conflicts.

Challenges to Implementation

Staff were asked on the survey to indicate barriers to implementing restorative practices. Results indicate that most staff (61 percent) viewed time as the greatest barrier. In interviews, participants described not having the time needed to learn more about restorative practices (e.g., through holding more-frequent PLGs) and not having the time to implement aspects of restorative practices, such as holding circles in classrooms. Teachers described the immense amount of curriculum they were obliged to cover and the assessments they had to prepare students for. In light of those responsibilities, sparing 20-plus minutes for circles to build community or respond to conflict in the classroom seemed an insurmountable challenge to some.

About half of staff (46 percent) indicated that "student attitudes" were a barrier to implementing restorative practices. Interviewees described disruptive behavior that frequently derailed well-intentioned circle discussions. As one teacher said of behavior challenges, "It felt like something that could be really meaningful was being torn apart by people who were not interested." A survey respondent wrote:

> There are several students who have not benefitted from the use of restorative practices at all. Rather, they disrespect it and scoff at it as a lenient form of discipline. These students, however few they may be . . . are disruptive to other students' learning and disruptive to their classroom, and the whole school in general. Because of these students, it becomes harder to implement restorative practices on the whole. . . . I feel that restorative practices [don't] address such students at all, rather it fails them entirely and ultimately is the foundation for all of the failings we have experienced with restorative practices as a whole.

Finally, about one-third of surveyed staff (31 percent) indicated that "lack of clarity around how restorative practices relate to discipline policies" was an implementation barrier. A few interviewees described confusion about the connection between restorative practices and discipline. They believed that, in theory, using restorative practices did not preclude disciplinary action; yet, the message from the district seemed to them to be that responses to incidents ought to be addressed through restorative practices only.

CHAPTER FIVE

Buy-In, Confidence, and Use of Restorative Practices

Before we turn to discussing impacts, we describe PERC school staff members' buy-in, confidence in using, and use of restorative practices and changes in these measures from the end of Year 1 to the end of Year 2. These descriptions are based primarily on PERC school staff survey responses on buy-in, confidence, and use. We do not have similar data from staff in the control schools. We do not consider these measures outcomes of PERC, but these data allow us to assess implementation efforts. We also answer the second half of our first research question in this chapter: What facilitated the use of restorative practices? In this chapter, we also present PERC staff members' opinions on the impact of restorative practices on school climate, student behavior, and the management of misconduct. In Chapter Six, we compare PERC schools with the control schools on these dimensions.

Buy-In

Most PERC school staff reported that they had bought into the use of restorative practices, both when surveyed at the end of Year 1 and when surveyed at the end of Year 2. On a four-point scale, average agreement with the three buy-in items across all staff was 3.00 in Year 1 and 3.03 in Year 2. We do find that RLT members have statistically significantly higher buy-in than non-RLT members (3.22 compared to 2.95). RLT staff volunteered early in the initiative to take a leadership role in their schools around restorative practices, and we would expect them to have high buy-in. This finding, while not surprising, provides evidence supporting the construct validity of the buy-in measure; that is, the buy-in measure appears to be capturing what we think it is capturing.

We examined buy-in by demographic and experiential characteristics. Staff who reported receiving direct support from either IIRP coaches or school leadership had higher buy-in on average. It could be that receiving direct support helped staff see how restorative practices could work for them. However, these findings are not causal, and it is also possible that those with higher buy-in were more likely to reach out and ask coaches or school leadership for support. The former explanation would suggest that early support is key to building buy-in, while the latter suggests targeting support for those with lower buy-in who may be less likely to ask for help. There were also a few facets where we expected to see some differences in staff buy-in and found none. For example, it seemed probable that staff who had attended trainings, especially the first two trainings prior to the start of Year 1, would have higher buy-in than the staff who did not—but we found no significant differences in buy-in between staff who attended training and those who did not. We also found no differences by school level (elementary, middle,

high), staff position, or PLG participation. However, the proportion of school staff with high buy-in varied both within and between schools. Aggregated across all schools, 19 percent of staff were considered to have high buy-in and 14 percent of staff were considered to have low buy-in, identified as one standard deviation or more above or below the average, respectively. We also saw differences across individual schools, with high buy-in ranging from 3 percent at one grade 6–8 school to 36 percent at one K–5 school. At seven schools, the proportion of staff with high buy-in ranged from 3 to 12 percent; at eight other schools, it ranged from 15 to 23 percent, and at seven more it ranged from 24 to 36 percent.

Confidence

Staff reported moderate confidence in their understanding and ability to use restorative practices in Year 1 and greater confidence in Year 2. Survey results indicated that 63 percent of staff in Year 1 and 73 percent of staff in Year 2 were confident in understanding and using restorative practices. Almost all of the observed variation in confidence was within schools and not between schools. This indicates that, for this initiative, there are staff with low and high confidence in each school.

The increase in confidence over the two years might indicate that aspects of implementation were helping staff feel more comfortable in their use of restorative practices. Indeed, we found that staff who reported receiving support from an IIRP coach or school administrator reported higher confidence with restorative practices. Additionally, staff who reported attending any PLGs throughout the year also reported significantly higher confidence with restorative practices. It is possible that more-confident staff were more likely to attend PLGs. Conversely, the PLGs might have engaged staff in discussions and knowledge-sharing that positively affected their confidence.

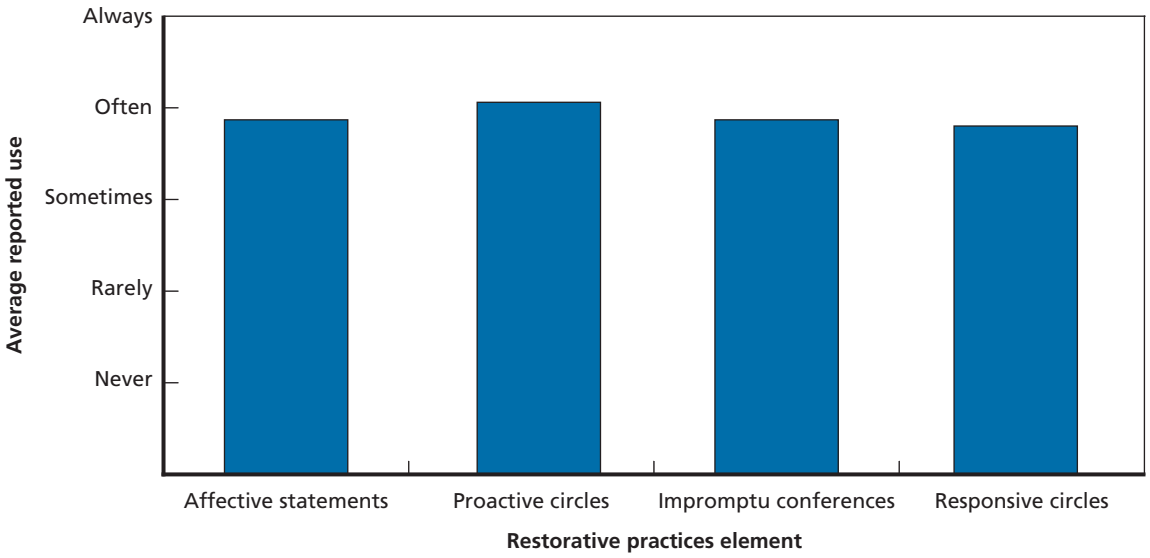
Use of Restorative Practices

We examined usage of restorative practices using survey, observation, and interview data. Surveys provide PERC-wide estimates for use on various restorative practices elements as well as a combined general use index. Observation and interview data from across the case study schools give insight into how restorative practices were implemented on the ground, such as how circles were performed by staff, what types of conflicts teachers used restorative practices for, and how staff were encouraged or discouraged to continue use. However, in quantifying use, we relied on the survey data.

RAND-administered surveys collected data on use of affective statements, proactive circles, impromptu conferences and restorative questions, and restorative conferences. As shown in Figure 5.1, across both years of the study, staff reported using affective statements, proactive circles, impromptu conferences, and responsive circles often. In the PERC schools, averaging across both years of implementation, 49 percent of staff reported using affective statements often or always, 69 percent reported using proactive circles often or always, and 44 percent reported using impromptu conferences or responsive circles often or always.

High school staff reported significantly less use of restorative practices than did elementary school staff. High school classroom teachers in particular reported lower use of restorative

Figure 5.1
Average Reported Use, by Restorative Practices Element



practices than elementary classroom teachers. It could be that taking time out of a lesson for a circle or restorative response is a proportionally greater cost for a teacher who sees students once in the day compared with a teacher who sees those students all day. There was no meaningful difference between other non-classroom teacher staff, such as paraprofessionals and counselors, at the high school and elementary school levels. Use did vary by individual school, however, with the proportion of high users ranging from 5 percent at one grade 6–8 school to 39 percent at one K–5 school. At eight schools, the proportion of high users ranged from 5 to 10 percent; at seven schools it ranged from 12 to 17 percent; at seven more schools it ranged from 18 to 39 percent. However, there were high, medium, and low users of restorative practices in each school. Aggregated across all schools, 15 percent of staff were considered high-use and 18 percent of staff were considered low-use, identified as one standard deviation or more above or below the average, respectively.

Proactive Circles

Because circles are an important component of restorative practices, as evidenced by the full-day training on them, we examine their use in greater detail here. Proactive circles are not done in response to a harmful incident but, rather, are low-risk, community-building, or instructional in nature. Proactive circles often encouraged students to get to know each other and/or brought the group together to refocus or start or end a day smoothly. They can be used to build trust among students and between students and teachers or other adults. Most survey respondents reported holding at least one proactive circle in Year 1 (76 percent of staff) and Year 2 (72 percent of staff). However, use varied greatly by staff position. Classroom teachers were the greatest users of proactive circles, reporting 2.4 per week on average. Other instructional and student support staff—such as substitutes, educational assistants, counselors, and paraprofessionals—reported holding two proactive circles per week. Other school staff—including food service employees, security staff, and custodial staff—reported holding (or participating in) 0.5 proactive circles per week.

We observed 149 proactive circles held with students in grades K–12 over the two-year implementation period. The vast majority of the circles we observed (97 percent) took place in a circle formation within a classroom, and most (70 percent) used a talking piece that circulated among the teacher and students, and only the person holding the piece could speak. Four themes emerged from our review of all of the circle topics, and we coded each circle as one of the following (definitions are followed by examples from observed circles):

- **Basic community-building.** Half of the circles we observed were aimed toward building community in the classroom by, for example, sharing light personal information. Circles topics included:
  - What did you do this weekend?
  - What is your favorite recess activity on the playground?
    - Fill in the blank. I can't imagine life without ____.
- **Reflecting and sharing feelings.** Just under a third of the circles we observed focused on sharing thoughts and feelings, either about past events or at the moment. Topics included:
  - How are you feeling today?
  - What is something you are grateful for?
  - What have you learned from your experiences about being loyal and sticking together?
- **Planning and problem-solving.** Approximately 15 percent of the circles we observed focused on making plans or problem-solving. Topics included:
  - What can you do to improve your behavior in school, so I know you are ready for a field trip?
  - Why is it important to set goals?
  - How do you stop yourself from feeling stressed out?
- **Instructional.** Approximately 5 percent of the circles we observed focused on reviewing or discussing class content. Topics included:
  - What do you anticipate? (A circle for the vocabulary word *anticipate*.)
  - Share a food you eat for breakfast that is good for your heart. (A circle based on an instructional topic about the heart and arteries and the effect of fatty foods on heart health.)
  - Practice counting by intervals (The teacher presented a number in the thousands [e.g., 2,651], and students counted up from that number by 5.)

We took field notes during and after the circle observations, rating each on the dimensions described above in the methods section. The circles varied quite a bit in terms of these dimensions, which included student-to-student respect, adult-to-student respect, and the commitment to the circle demonstrated by the students. Here is an example of a highly rated proactive circle. It lasted five minutes and was conducted with 16 4th-graders:

> The teacher was kind, welcoming, and consistent. Two students walked in late as the circle was coming together, and she said, "Come join us, I missed you yesterday." When a student decided on a question for the circle, the teacher said, "Love it, great question."
>
> The question was, "How are you feeling this morning?" A talking piece was passed from student to student without anyone talking when they did not hold it. The students listened to each other attentively without any site chatter. There was no giggling or comments about anything that was shared.

> At the end of the circle, a student had another thought she wanted to share—she didn't blurt it out; she said, "Can I say something else?" The teacher passed back the talking piece and the student said, "Today, everybody shared." She was pointing out that everyone in the circle shared something, even those who had initially passed. Students were permitted to pass and the process of coming back to them was led by the teacher and very smooth.
>
> The teacher wrapped up the circle by synthesizing what was heard and how it was helpful. "I love how many of you said you are happy today, that makes me happy. Some of you are frustrated and I hope that works out for you. I know how tired feels. It's good to know how you feel and now you know how I feel. We have to move on now, but let's remember those who said they're tired or frustrated so we can help them out today."

Here is an example of a lower-rated proactive circle. It lasted ten minutes and was conducted with 15 6th-graders:

> The teacher asked the students to describe a high point and low point they had experienced this week. Throughout the ten minutes, the students spoke over each other, had side conversations, and bounced the talking piece like a basketball.
>
> For her low point, a female student said, "I dislocated someone's arm yesterday." The teacher responded in a frustrated high tone, "That's not the part you're supposed to share!" She looked at the student in disappointment. The student in response looked at the teacher with an expression of surprise and said, "What? What?"
>
> After the teacher relayed her low point, a student yelled out while laughing, "I thought your low point would be teaching us every day." With a stern face and curt tone the teacher said, "No I wouldn't come here every day if it was." Another student said in a quieter voice, "Yeah maybe you come for the money."

Responsive Circles, Impromptu Conferences, and Formal Conferences

Responsive circles, impromptu conferences, and formal conferences respond to incidents and provide opportunities to reflect, share feelings and reactions, and consider how to repair the harm that occurred and/or prevent a reoccurrence. Impromptu conferences are on-the-spot conversations with a few students designed to address and resolve lower-level incidents before they escalate into larger issues. If there is a more serious incident, a responsive circle can be used to bring the entire class or group of students together in a restorative way. For very serious incidents or chronic issues, staff were encouraged to try a formal conference that involves bringing in parents and close peers of the students involved and setting an action plan for improvement.

In Year 1, 77 percent of staff held an impromptu conference and held an average of 2.8 per week. In Year 2, we surveyed staff about impromptu conferences again, as well as about the number of responsive circles and formal conferences they held. Again, most (67 percent) reported holding an impromptu conference and/or responsive circle (53 percent), on average 2.8 per week. Fewer staff, 19 percent, reported holding at least one formal, restorative conference.

We observed 40 responsive circles during the two-year implementation period. After reviewing all of the responsive circle topics, we classified them based on where the incident occurred and where the impact of the incident was largely felt. The responsive circles we

observed were in response to classroom, school, or community issues. Examples of circle questions in these three arenas including the following:

- **Classroom issue.** About one-third of the responsive circles we observed focused on an incident that took place in the classroom and directly affected the classroom community. These circles were held in the classroom.
  - How do we feel when people call us names and put us down?
  - How have you helped or hurt our classroom community when it comes to following directions this week?
- **School issue.** About half of the responsive circles we observed focused on an incident that took place in school and affected the school climate (the impact of the incident reached beyond one classroom). These circles were often held in a classroom among students in detention or in-school suspension.
  - If you are on the playground and an argument starts with someone, what would be a good way to react?
  - Why are you in detention today? How can you make sure you don't get detention again?
- **Community issue.** About one-sixth of the responsive circles we observed focused on an incident that occurred outside of school.
  - What are your thoughts about the transition of power (Trump's inauguration)?
  - A fight between students occurred over the weekend in the community. Why did the fight happen and how could it have been prevented?

Facilitators of Use

We examined whether staff who reported greater knowledge or expertise in restorative practices also reported greater use. Greater knowledge or expertise could provide staff with a larger skill set to draw on in using restorative practices in a range of situations. We found that staff who reported greater knowledge of restorative practices did report significantly higher use. Table 5.1 shows the proportion of staff by response category and the effect size of the difference in use between that group and the reference group. The majority of staff reported knowing what some of the essential elements are (56 percent). Compared with this group, those who reported not understanding restorative practices also reported using them more than half a standard deviation less frequently. Those who reported knowing more than some of the elements reported significantly higher use.

We also considered that staff who had received more support might use restorative practices to a greater extent than staff who had received less or no support. To test this, we looked at survey items on support from IIRP, school administration, and PLG attendance in relation to staff-reported use of restorative practices. All of these supports were related to increased use. Staff who reported attending one or more PLGs per month also reported higher use than did staff who reported attending less than one PLG per month. This could be the result of idea sharing, peer troubleshooting, the PLG serving as a reminder of the general initiative, or that more-motivated staff who would have used restorative practices to a greater extent were also attending PLGs more frequently. Similarly, staff who reported receiving direct support from IIRP coaches and/or school administration also reported higher use of restorative practices.

Table 5.1
Proportion of PERC Staff Who Understand Restorative Practices and the Effect Size of the Differences in Use

The Extent to Which Respondents Feel They Understand Restorative Practices	Proportion of Staff	Effect Size Difference in Use Compared with Reference Group
I do not understand restorative practices	4%	–0.62*
I know what some of the elements are	56%	Reference group
I know all of the elements	30%	0.40***
I could explain all of the elements to a peer	8%	0.49**
I could train another person to use all of the elements	2%	1.00***

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

This effect was consistent independent of the type of support received, which ranged from providing additional information and answering questions to formal modeling and observation. It is possible that any type of direct support is a signal of commitment to the intervention that promotes use among staff. Alternatively, staff who are already motivated and higher users of restorative practices could be the ones seeking support.

Perceived Impacts

We surveyed PERC school staff on whether they thought that school climate, student behavior, and how conflict was handled had improved as a result of restorative practices. At the end of Year 1, staff on average disagreed that restorative practices had positively affected these outcomes. Despite a significant increase in restorative practice use from Year 1 to Year 2 and no decline in buy-in for restorative practices, respondents on average neither agreed nor disagreed with them having had an impact on these outcomes in Year 2. Of all respondents who reported that restorative practices had the potential to improve student behavior in Year 2, only 45 percent thought the practices actually had a positive impact on student behavior.

In a similar vein, interviewees were split on whether or not they thought restorative practices were influencing climate or student behavior. Some thought that they were, and for the better. Most interviewees thought that the climates in their classroom had improved due to the use of circles and other restorative practices. One described her classroom this way:

> The biggest change has been the comfort level with each other. They really do all get along now. They still sit with their closest friends. But they speak with each other and ask each other "What's going on?" They care more about each other now.

Other staff thought that while classroom climate might have improved, the transfer to school-wide climate was yet to be seen. One teacher said, "If a girl from my class hears something from another group, she'll just want to fight her. I don't know if that transfer to the bigger picture has been made yet."

Interviewees were also split on the extent to which PERC was influencing student behavior. Some believed that the behavior of a handful of "repeat offenders" with serious infractions

could not be changed. Some explained that many of these students were experiencing mental health challenges that could not be addressed by restorative practices. Others speculated that students were taking advantage of "restorative practices being used in place of discipline and suspension." One teacher noted,

> I don't think it [PERC] is making a difference with discipline. I actually think if the kids think the step is just a conference, they'll think, "Oh, I can just get away with it again, they're not gonna do anything, they just talk to me." The problem is that they are not owning up to what they did.

However, at the end of Year 2, 63 percent of surveyed staff reported that their relationships with students had moderately or greatly improved as a result of restorative practices. Interviewees described students and teachers as engaged in more-productive discussions than prior to PERC, that students had learned to communicate better, and that students who had engaged had built more trust with adults. One said, "I do feel like the kids are more willing and forthcoming with their problems and information to adults. I feel like some of them do consider us to be more of an ally to them." Others described restorative practices as helping teachers and students understand each other. One said that restorative practices "minimize behavior issues that could have grown into something more severe," and another said that fights were prevented.

Changes from Year 1 to Year 2

For measures we have across both waves of the survey, we were able to examine changes from Year 1 to Year 2. Table 5.2 presents the year averages and the change (delta) between years on buy-in, confidence, average proactive circles run per week, average impromptu conferences and responsive circles run per week, and perceived impact on handling conflict and on climate. There is almost no difference in reported levels of buy-in from Year 1 to Year 2. This suggests that buy-in was established early and that it did not diminish over the course of the two-year implementation period. Without a baseline measure prior to the intervention, we do not know whether buy-in grew over the course of the first year of implementation.

We do find, however, that staff reported a significant increase in confidence from Year 1 to Year 2. This suggests that staff felt more comfortable in their understanding of restorative practices or in their ability to use them.

When looking at use from Year 1 to Year 2, we find no meaningful change in reported number of proactive circles run per week. This is somewhat expected, as proactive circles are not in response to anything and were to be used throughout the school year with students to foster community and communication. We also did not find a significant change in the number of impromptu conferences/responsive circles reported by staff between the two years.

There was a positive change for the perceived impact on handling conflict. In Year 1, staff generally disagreed that restorative practices improved the way conflict was handled, and in Year 2, staff on average shifted to the midpoint, reflecting an increase in agreement. One of the objectives of the restorative practices initiative was to change how conflict was handled in schools, and more staff agreed in the second year that this was the case. However, staff on average did not yet see restorative practices as having an impact on how conflict was handled.

Table 5.2
Changes in Survey Measures Across Implementation Years

	Year 1	Year 2	Delta
Buy-in	3.00	3.03	0.03
Confidence	2.86	2.99	0.13**
Average number of proactive circles per week	2.27	2.02	−0.25
Average number of impromptu conferences and responsive circles per week	2.80	2.80	< 0.01
Perceived impact on handling conflict	2.38	2.53	0.15***
Perceived impact on school climate	2.35	2.40	0.05
Use of affective statements elements	3.85	3.91	0.06
Use of proactive circles elements	4.00	4.15	0.15
Use of impromptu conferences elements	3.75	3.99	0.24***

** $p < 0.01$; *** $p < 0.001$

Similarly, there was no change in the perceived impact on school climate. Staff in both years on average slightly disagreed that restorative practices were improving school climate. In the next chapter, we go beyond examining just PERC school survey data and compare outcomes between PERC schools and the schools serving as a control group.

CHAPTER SIX

Outcomes: Causal Findings

In this chapter, we address our second research question: What were the impacts of PERC?

We describe the impact of restorative practices on suspension rates, arrests, absences, mobility among schools, and student achievement. We also explore the impact of restorative practices on students' description of their classroom and school climate (based on the Tripod survey) and teachers' description of their school climate (based on the TLC survey). With each primary outcome, we discuss the extent to which student characteristics moderate treatment effects.

The tables in this chapter that present our impact estimates take a common form. The first row shows the results for our primary outcome measure, followed by rows for secondary outcome measures and by-subgroup findings for the primary outcome measure. In addition to the impact estimates and statistical significance both in their natural units and in effect size terms, the tables also present information about sample size, attrition, and baseline equivalence. We comment on these latter pieces of information only when they raise concerns about the validity of the impact estimates. As discussed in Chapter Three, WWC considers estimates to not be valid evidence if baseline equivalence is worse than 25 percent of a standard deviation or if the expected bias from attrition is greater than 0.05 of a standard deviation. We use the optimistic assumptions behind attrition bias because we do not expect attrition to be substantially caused by the treatment.

Suspensions

Table 6.1 presents the estimated impact on suspensions. PERC reduced the number of days lost to suspension per student during Year 2 by 0.10 from what it would have been in the absence of the PERC initiative. The baseline number of days lost per student in the treatment and control schools was 0.63 in 2014–15, so this equates to a 16-percent reduction in days of instruction lost to suspension. This estimate is significant at the 0.05 level and is equivalent to an effect size of –0.060. This suggests that PERC was successful in its primary goal of reducing exclusionary discipline rates. This estimated impact of PERC is over and above the reduction in suspensions that was experienced by the control schools.

This primary outcome measure is the most comprehensive of the suspension measures. It combines three aspects of suspension: the duration of suspensions, the number of suspensions per student, and the likelihood that a student is suspended. The first three secondary outcome measures peel back these aspects one at a time. The first secondary outcome removes information about duration, thereby focusing on how many times each student is suspended. PERC

Table 6.1
Suspension Findings

	Impact Estimate	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Overall Attrition	Differential Attrition (treatment minus control)	Expected Effect Size Bias Due to Attrition (conservative)	Expected Effect Size Bias Due to Attrition (optimistic)	Estimation Sample Size
Primary outcome:									
Days suspended during Year 2	–0.103	–0.060*	0.630	–6.0%	14.6%	–0.8%	0.021	0.017	8,940
Secondary outcomes:									
Number of suspensions during Year 2	–0.044	–0.057*	0.344	–0.6%	14.6%	–0.8%	0.021	0.017	8,940
Suspended two or more times during Year 2	–1.1%	–0.046+	7.8%	–2.7%	14.6%	–0.8%	0.021	0.017	8,940
Suspended during Year 2	–2.0%	–0.057+	15.8%	–3.6%	14.6%	–0.8%	0.021	0.017	8,940
Suspended during Year 2 for violence or weapons	–0.6%	–0.026	5.4%	–7.1%	14.6%	–0.8%	0.021	0.017	8,940
Suspended during Year 2 for other reasons	–2.2%	–0.071*	13.3%	–1.9%	14.6%	–0.8%	0.021	0.017	8,940
Primary outcome by subgroups:									
African American	–0.153	–0.074**	0.968	–4.9%	15.6%	–1.5%	0.026	0.020	4,467
White	–0.003	–0.003	0.233	2.4%	12.5%	0.1%	–0.015	–0.012	3,272
Male	–0.067	–0.037	0.769	–5.5%	15.3%	–0.1%	0.017	0.014	4,511
Female	–0.130	–0.083*	0.487	–6.0%	13.9%	–1.5%	0.026	0.019	4,429
Students with IEPs	–0.008	–0.005	0.797	0.2%	16.9%	1.6%	–0.028	–0.021	1,758
Students without IEPs	–0.135	–0.077*	0.588	–6.9%	14.0%	–1.3%	0.024	0.018	7,182
Students who are economically disadvantaged	–0.134	–0.067**	0.821	–4.7%	16.5%	0.5%	–0.021	–0.017	4,941
Students who are not economically disadvantaged	–0.045	–0.037	0.381	–4.2%	12.1%	–1.9%	0.026	0.019	3,999
Grade 2–5 students	–0.176	–0.158**	0.260	–2.8%	14.7%	3.7%	–0.040	–0.028	4,070
Grade 7–8 students	0.086	0.047	0.601	–1.2%	12.6%	1.6%	–0.025	–0.018	2,625
Grade 10–12 students	–0.583	–0.251**	1.318	–23.4%	16.7%	–11.8%	0.094	0.060	2,245

NOTE: ** $p < 0.01$, * $p < 0.05$; shading indicates estimate not valid because either baseline standardized difference between treatment and control groups is greater than 25 percent or because optimistic effect size bias is greater than 0.05.

reduced the number of suspensions per student by 0.04 from a baseline of 0.34 suspensions per student, or a 13-percent reduction in the number of suspensions. This reduction was also significant at a 0.05 level. The next two measures, which capture whether a student was suspended at least twice or at all, are significant at the less stringent 0.10 level.

The final two secondary suspension measures reflect the reason for the suspension. PERC did not have an impact on the likelihood that students were suspended for serious infractions involving violence or weapons. However, the number of students suspended for less-serious infractions was down by 2.2 percentage points. This suggests that either students committed fewer of these lesser offenses or that staff used non-exclusionary discipline practices rather than suspension to sanction misbehaving students.

We found substantial and significant differences in the change in suspensions among student subgroups. PERC reduced days lost to suspension among African American students but not white students, thereby reducing the considerable racial gap in suspensions. PERC significantly reduced the suspension rate for girls but not boys. PERC reduced the days lost to suspension for students without IEPs, but not for those with IEPs, thereby increasing the prior disparity between these groups. PERC reduced the poverty gap in suspensions, reducing days lost to suspension for economically disadvantaged students but not for other students.

Our analyses that divide the sample by their grade level at the end of the initiative show a notable impact of PERC on students in the elementary grades. PERC reduced the days lost to suspension of elementary school students by more than half—a reduction of 0.176 days from a baseline of 0.260 days. The estimated impact on middle school students is positive but not significant. The estimated impact on high school students is negative, large, and statistically significant but should be interpreted with caution, because attrition exceeds the acceptable threshold for this subgroup, leading to possible bias.

To give more context to these estimates, we examine the actual change in suspensions in the study schools from the pre-initiative year of 2014–15 to the final initiative year of 2016–17. We then use the impact estimates to divide this actual change into the change due to PERC and the change due to non-PERC factors. As mentioned above, the district was encouraging all schools to reduce suspensions, so it is not surprising that suspensions decreased due to non-PERC factors as well as to PERC factors. We calculate the expected suspensions if the district had not implemented PERC in any schools and the expected suspensions if the district had implemented PERC in all schools. We calculate expected suspensions both for the district as a whole and for each of the subgroups for which we have valid estimates. We also calculate what disparities by race, gender, IEP, and economic disadvantage would have been both with and without PERC. Table 6.2 presents these calculations for our primary outcome, days of instruction lost to suspension.

The first row of Table 6.2 shows that the average days lost due to suspension decreased by 0.115 days, or 18 percent, from the 2014–15 baseline value, due to factors unrelated to PERC. This estimate is derived from the decrease in suspensions in the control schools. Implementation of PERC further decreased days lost to suspension by 0.103 days, thereby doubling the decrease in days lost from what it would have been without PERC.

The second and third rows provide the same calculations separately for African American and white students in the district. African American students lost considerably more days to instruction than white students at baseline, but the decreases during the initiative were greater for African American students, both due to PERC and to other factors. The negligible impact of PERC for white students implies that PERC reduced disparities from what they would have

Table 6.2
Average Days Lost to Suspension

Student Characteristic	Baseline Value (2014–15)	Change Due to Non-PERC Factors	Final Value Without PERC (2016–17)	Disparities Without PERC*	Change Due to PERC	Final Value With PERC (2016–17)	Disparities With PERC*
All	0.630	−0.115	0.515		−0.103	0.412	
African American	0.968	−0.178	0.790	4.37	−0.153	0.638	3.59
White	0.233	−0.053	0.181		−0.003	0.178	
Male	0.769	−0.190	0.579	1.30	−0.067	0.511	1.62
Female	0.487	−0.041	0.445		−0.130	0.315	
With IEPs	0.797	−0.273	0.524	1.01	−0.008	0.516	1.35
Without IEPs	0.588	−0.071	0.517		−0.135	0.382	
Economically disadvantaged	0.821	−0.113	0.709	2.72	−0.134	0.575	2.67
Not economically disadvantaged	0.381	−0.120	0.261		−0.045	0.216	
Grade 1–5 students	0.260	0.014	0.274		−0.176	0.098	
Grade 7–8 students	0.601	−0.321	0.279		0.086	0.365	

* Disparities are expressed as the ratio between the final values for the top and bottom subgroups within each pair.

been without PERC. Without PERC, African American students would have lost 4.37 times as many days as white students to suspension, but with PERC that was reduced to 3.59. The next six rows show the contributions of PERC to reducing suspensions for other subgroups relative to the contributions of other forces in the district. PERC reduced disparities by economic disadvantage status, but not by gender or by IEP status.

The final two rows of the table show the contributions of PERC relative to non-PERC factors on days suspended in elementary and middle school. Of note, we find that, without PERC, the number of days lost to suspensions in elementary school increased over the two-year time period. However, PERC dramatically reduced suspensions, more than offsetting these other factors. The opposite is true for middle school. Other factors cut suspension days in half, but PERC offset about a quarter of this improvement.

Table 6.3 presents similar calculations for a secondary suspension measure: the percentage of students suspended. Although the primary measure of days suspended is more comprehensive, this secondary measure is not influenced by lengthy suspensions or students with multiple suspensions, making it more sensitive to changes in suspensions for students with little disciplinary involvement. It echoes the patterns found in Table 6.2, such as the impact of PERC on the decreases in disparities by race and economic disadvantage due to the large relative contribution of PERC to the reduction of suspensions for African American and economically disadvantaged subgroups. It also indicates that the percentage of elementary school students who were suspended would have increased more than a third without PERC.

Table 6.3
Percentage of Students Suspended at Least Once

Student Characteristic	Baseline Value (2014–15)	Change Due to Non-PERC Factors	Final Value Without PERC (2016–17)	Disparities Without PERC*	Change Due to PERC	Final Value With PERC (2016–17)	Disparities With PERC*
All	15.8%	–1.2%	14.6%		–2.0%	12.6%	
African American	23.2%	–1.3%	21.9%	3.78	–3.2%	18.7%	2.88
White	7.2%	–1.4%	5.8%		0.7%	6.5%	
Male	18.9%	–1.9%	17.0%	1.40	–1.6%	15.4%	1.59
Female	12.6%	–0.5%	12.1%		–2.4%	9.7%	
With IEPs	22.5%	–4.4%	18.1%	1.31	–0.6%	17.5%	1.56
Without IEPs	14.1%	–0.3%	13.8%		–2.6%	11.2%	
Economically disadvantaged	20.1%	–0.1%	20.0%	2.70	–2.8%	17.2%	2.36
Not economically disadvantaged	10.3%	–2.9%	7.4%		–0.1%	7.3%	
Grade 1–5 students	8.2%	3.3%	11.5%		–6.5%	5.0%	
Grade 7–8 students	17.2%	–6.6%	10.6%		2.6%	13.2%	

* Disparities are expressed as the ratio between the final values for the top and bottom subgroups within each pair.

Arrests

Table 6.4 presents the estimated impact on arrests. PERC did not have a significant impact on the percentage of students arrested during the second year of the initiative. The estimated reduction of 0.08 percentage points from the small baseline of 1.21 percent equates to an effect size of only 0.006.

Of the three secondary outcomes, none are statistically significant at the 0.05 level. Of the 11 subgroup analyses, one is significant at the 0.05 level. PERC reduced arrests among students without IEPs by 0.42 percentage points but did not reduce arrests for students with IEPs. However, given that the estimated impact on the primary outcome in this domain is not significant, these secondary and subgroup estimates should be interpreted with caution.

Absences

Table 6.5 presents the estimated impact on student absences. PERC did not have a significant impact on days absent during the second year of the initiative. Likewise, the estimated impacts on the secondary outcomes of absent but not suspended, unexcused absences, excused absences, and chronic absenteeism are not significant.

Among the subgroups, three of the 11 have a significant reduction in absences, but one of these is for a subgroup (grades 9–12) with unacceptable levels of baseline equivalence and differential attrition. The two subgroups with a significant reduction in absences are students with IEPs and 1st- to 5th-graders. These reductions are 2.3 days from a baseline of 14.2 days and 0.8 days from a baseline of 10.7 days, respectively.

Table 6.4
Arrest Findings

	Impact Estimate (percentage points)	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Estimation Sample Size
Primary outcome:					
Arrested during Year 2	–0.08%	–0.006	1.21%	–3.2%	10,249
Secondary outcomes:					
Arrested for felony during Year 2	–0.17%	–0.017+	0.45%	–2.0%	10,249
Arrested by PPS police during Year 2	–0.19%	–0.019	0.65%	–0.7%	10,249
Arrested by other police during Year 2	0.16%	0.015	0.59%	–4.5%	10,249
Primary outcome by subgroups:					
African American	–0.09%	–0.005	1.83%	–3.0%	5,136
White	0.32%	0.033	0.48%	–2.1%	3,660
Male	0.58%	0.035	1.47%	–4.7%	5,138
Female	–0.67%	–0.058+	0.96%	–1.1%	5,111
Students with IEPs	1.09%	0.056+	1.97%	2.2%	2,068
Students without IEPs	–0.42%	–0.033*	1.03%	–4.5%	8,181
Students who are economically disadvantaged	0.17%	0.011	1.67%	–1.6%	5,690
Students who are not economically disadvantaged	–0.26%	–0.021	0.65%	–4.1%	4,559
Grade 1–5 students	–0.27%	–0.038+	0.06%	5.2%	3,480
Grade 7–8 students	0.87%	0.061+	0.57%	3.8%	3,532
Grade 10–12 students	0.17%	0.009	3.18%	–12.9%	3,237

* $p < 0.05$, + $p < 0.10$. No attrition by definition.

Mobility

Table 6.6 presents the estimated impact on student mobility. PERC did not have a significant impact on the percentage of students who changed schools during the second year of the initiative or during the summer immediately prior, nor did it have an impact on school changing during the summer or school year when estimated separately. However, PERC reduced the third secondary outcome: being placed in an alternative school. We estimate that PERC virtually eliminated this practice and this estimate is statistically significant at the stringent 0.01 level. Our estimate of a 1.1-percentage-point reduction from a baseline of 1.0 percent is not literally possible but can be understood as the expected reduction due to PERC in the alterna-

Table 6.5
Absence Findings

	Impact Estimate	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Overall Attrition	Differential Attrition (treatment minus control)	Expected Effect Size Bias Due to Attrition (conservative)	Expected Effect Size Bias Due to Attrition (optimistic)	Estimation Sample Size
Primary outcome:									
Days absent during Year 2	–0.922	–0.065	11.970	–8.2%	14.6%	–0.8%	0.021	0.017	8,940
Secondary outcomes:									
Days absent but not suspended during Year 2	–0.795	–0.057	11.299	–6.8%	14.6%	–0.8%	0.021	0.017	8,940
Days absent (unexcused) during Year 2	–0.756	–0.064	5.750	–9.2%	14.6%	–0.8%	0.021	0.017	8,940
Days absent (excused) during Year 2	–0.166	–0.027	6.220	–2.5%	14.6%	–0.8%	0.021	0.017	8,940
Chronically absent during Year 2 (> 10% of days)	–2.0%	–0.048	20.8%	–9.3%	14.6%	–0.8%	0.021	0.017	8,940
Primary outcome by subgroups:									
African American	–1.439	–0.100+	12.549	–10.8%	15.6%	–1.5%	0.026	0.020	4,467
White	–0.211	–0.015	11.529	–5.2%	12.5%	0.1%	–0.015	–0.012	3,272
Male	–0.829	–0.059	12.110	–6.5%	15.3%	–0.1%	0.017	0.014	4,511
Female	–1.064	–0.073	11.826	–9.9%	13.9%	–1.5%	0.026	0.019	4,429
Students with IEPs	–2.330	–0.149*	14.196	–8.4%	16.9%	1.6%	–0.028	–0.021	1,758
Students without IEPs	–0.571	–0.041	11.407	–7.0%	14.0%	–1.3%	0.024	0.018	7,182
Students who are economically disadvantaged	–1.011	–0.065	13.992	–6.0%	16.5%	0.5%	–0.021	–0.017	4,941
Students who are not economically disadvantaged	–0.582	–0.048	9.339	–4.8%	12.1%	–1.9%	0.026	0.019	3,999
Grade 1–5 students	–0.860	–0.082*	10.675	9.1%	14.7%	3.7%	–0.040	–0.028	4,070
Grade 7–8 students	0.629	0.050	10.563	0.9%	12.6%	1.6%	–0.025	–0.018	2,625
Grade 10–12 students	–11.553	–0.594**	15.830	–44.2%	16.7%	–11.8%	0.094	0.060	2,245

NOTES: ** $p < 0.01$, * $p < 0.05$; shading indicates estimate not valid because either baseline standardized difference between treatment and control groups is greater than 25 percent or because optimistic effect size bias is greater than 0.05.

Table 6.6
Mobility Findings

	Impact Estimate	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Overall Attrition	Differential Attrition (treatment minus control)	Expected Effect Size Bias Due to Attrition (conservative)	Expected Effect Size Bias Due to Attrition (optimistic)	Estimation Sample Size
Primary outcome:									
Changed schools during Year 2 or prior summer	–0.6%	–0.018	10.4%	–12.0%	10.3%	–0.3%	0.014	0.011	9,673
Secondary outcomes:									
Changed schools during Year 2	0.1%	0.005	5.0%	–9.1%	10.3%	–0.3%	0.014	0.011	9,673
Changed schools during summer before Year 2	–0.4%	–0.018	6.1%	–8.4%	10.3%	–0.3%	0.014	0.011	9,673
Put in alternative placement during Year 2 or prior summer	–1.1%	–0.070**	1.0%	–9.9%	10.3%	–0.3%	0.014	0.011	9,673
Primary outcome by subgroups:									
African American	–0.7%	–0.019	13.7%	–12.7%	10.3%	–0.7%	0.017	0.013	4,917
White	–1.7%	–0.061+	6.3%	–2.3%	9.6%	0.2%	–0.013	–0.010	3,459
Male	–1.0%	–0.029	11.0%	–13.6%	10.7%	0.6%	–0.016	–0.013	4,905
Female	–0.1%	–0.002	9.8%	–10.2%	9.8%	–1.1%	0.019	0.014	4,768
Students with IEPs	0.5%	0.012	15.0%	–10.8%	11.1%	1.9%	–0.025	–0.018	1,967
Students without IEPs	–0.5%	–0.015	9.2%	–11.6%	10.1%	–0.8%	0.017	0.013	7,706
Students who are economically disadvantaged	0.4%	0.011	13.0%	–13.2%	11.0%	1.0%	–0.020	–0.015	5,460
Students who are not economically disadvantaged	–1.7%	–0.057+	6.9%	–6.6%	9.3%	–1.7%	0.023	0.016	4,213
Grade 1–5 students	–1.6%	–0.049	10.6%	–8.4%	10.7%	3.3%	–0.035	–0.024	4,376
Grade 7–8 students	–1.2%	–0.034	10.1%	1.1%	9.0%	0.2%	–0.012	–0.010	2,801
Grade 10–12 students	–5.9%	–0.160**	10.5%	–33.7%	11.0%	–6.9%	0.060	0.038	2,496

NOTES: ** $p < 0.01$, + $p < 0.10$; shading indicates estimate not valid because either baseline standardized difference between treatment and control groups is greater than 25 percent or because optimistic effect size bias is greater than 0.05.

tive placement rate in 2016–17 for the set of students who had a 1.0-percent placement rate in 2014–15.

None of the 11 subgroup analyses had a valid estimate that showed a significantly reduced impact on overall mobility.

Achievement

Table 6.7 presents the estimated impact on student achievement. Although raising achievement is neither a primary nor immediate goal of PERC, it is important to examine whether improvements in behavior and disciplinary actions come at the cost of reduced achievement.

The first row of Table 6.7 shows that the estimated impact on the primary achievement measure, the combined math and reading state assessment score in grades 3–8, is not significant at conventional levels. The estimated impacts on secondary measures and for subgroups show a mix of null and negative estimates. There was a negative impact on the math component of the state assessment in grades 3–8, as well as negative impacts on the combined assessment score for the African American subgroup and the middle school grades subgroup. As with other outcome domains, the estimates for high school grades are not valid because of baseline non-equivalence.

When viewed in the context of our subgroup estimates for the suspension outcome, the subgroup estimates for the achievement outcome present some puzzles. The significant impact of PERC on suspensions was for elementary grades, whereas the significant impact on achievement was for middle school grades, suggesting that reduced suspensions are not the reason that PERC reduced achievement in some cases. Also, supplementary analyses (not shown) demonstrate that the impact on African American students happened at the school level; that is, PERC had a negative impact on achievement for both African American and white students at schools that were predominantly attended by African American students, but not for either African American or white students at schools that were not predominantly attended by African American students. This suggests that the likely explanation for the negative impact of PERC on achievement for some students in the district is the way in which it was implemented in these schools, rather than any attributes of the students themselves or their out-of-school circumstances.

Teaching Practices and Student Perceptions of Classroom Climate

PPS uses RISE, a comprehensive measure of teacher effectiveness, to monitor teacher performance. RISE contains a composite scale from the Tripod student survey as one component of this comprehensive measure. Another component for teachers of students in tested grades and subjects is value added—a calculation of student test score growth that accounts for student characteristics. Scores from the Tripod survey and scores from value added calculations are combined with measures from principals' observations of teachers into RISE, which is used for teacher evaluation and development.

The Tripod instrument is typically used to produce a composite scale and seven subscales. The composite scale reflects overall teacher performance, and the subscales capture particular aspects of teaching practice. These subscales, known as "7Cs," are Care, Confer, Captivate,

Table 6.7
Student Achievement Findings

	Impact Estimate	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Overall Attrition	Differential Attrition (treatment minus control)	Expected Effect Size Bias Due to Attrition (conservative)	Expected Effect Size Bias Due to Attrition (optimistic)	Estimation Sample Size
Primary outcome:									
PSSA standardized combined score in Year 2 (grades 3–8)	–0.065	–0.065+	0.022	2.8%	12.8%	2.6%	–0.032	–0.022	4,702
Secondary outcomes:									
PSSA standardized reading score in Year 2 (grades 3–8)	–0.055	–0.055	0.022	2.8%	12.3%	2.3%	–0.030	–0.021	4,730
PSSA standardized mathematics score in Year 2 (grades 3–8)	–0.069	–0.068*	0.022	2.8%	12.2%	2.5%	–0.031	–0.021	4,733
DIBELS standardized score in Year 2 (2nd grade)	–0.013	–0.014	0.064	–11.1%	8.4%	0.7%	–0.015	–0.011	1,195
PSAT standardized combined score in Year 2 (10th grade)	0.113	0.118**	–0.008	71.3%	30.7%	–24.4%	0.183	0.114	540
Primary outcome by subgroups:									
African American	–0.119	–0.150**	–0.147	–0.2%	14.7%	3.4%	–0.038	–0.026	2,370
White	–0.030	–0.029	0.251	2.3%	10.3%	2.7%	–0.030	–0.021	1,689
Male	–0.061	–0.061+	–0.051	–1.0%	13.6%	3.0%	–0.035	–0.024	2,341
Female	–0.066	–0.065	0.096	6.1%	12.0%	2.3%	–0.029	–0.020	2,361
Students with IEPs	–0.067	–0.088+	–0.475	–13.0%	17.3%	7.2%	–0.064	–0.042	796
Students without IEPs	–0.058	–0.059	0.130	6.3%	11.8%	1.7%	–0.025	–0.018	3,906
Students who are economically disadvantaged	–0.051	–0.062	–0.113	–0.8%	14.5%	2.7%	–0.034	–0.024	2,647
Students who are not economically disadvantaged	–0.073	–0.067+	0.204	7.1%	10.6%	2.5%	–0.029	–0.020	2,055
Grade 1–5 students	0.020	0.020	–0.009	–10.6%	9.3%	2.7%	–0.030	–0.020	2,348
Grade 7–8 students	–0.106	–0.105*	0.051	3.4%	16.0%	1.1%	–0.024	–0.018	2,354
Grade 10 students (PSAT)	0.113	0.118**	–0.008	71.3%	30.7%	–24.4%	0.183	0.114	540

NOTES: ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$; shading indicates estimate not valid because either baseline standardized difference between treatment and control groups is greater than 25 percent or because optimistic effect size bias is greater than 0.05.

Clarify, Consolidate, Challenge, and Classroom Management. For our purposes, the Classroom Management scale is a useful measure of the students' judgments about their teacher's classroom practices related to safety and discipline. We used the Classroom Management scale as our primary outcome measure for the teacher performance and student perception of culture domain. The Tripod composite measure and the other six subscales are some of the secondary measures for this domain.

In addition to the teaching effectiveness questions that go into these standard 7C subscales, Tripod also asks students questions about other aspects of their classroom and school experience. These additional questions are grouped into many constructs, four of which are relevant to our study: Trust, In-Class Peer Support, School Climate, and Bullying. The first two of these are measured at all grade levels; the second two are only measured in secondary grades. We use scales created from these four question groupings as additional secondary outcomes for this domain. We also examine several individual questions that specifically address classroom management—questions that we highlighted in the introduction to this report. Finally, we also use teachers' value-added scores and the RISE comprehensive performance measure as secondary outcomes.

The first row of Table 6.8 indicates that PERC reduces students' rating of teachers' classroom management by 4.1 points from a baseline of 51.9 points on a normal equivalent curve, which is equivalent to an effect size of 0.209. This impact is significant at the 0.01 level. The impact on the composite Tripod measure and four of the other six C's are also negative and significant. The impact of PERC is negative and significant on one of the four climate and culture scales (In-Class Peer Support), and not significant on the other scales or on the three individual questions. It should be noted that Tripod scores were trending down in PERC schools relative to control schools prior to the beginning of PERC in 2015, which is similar to what we found for test scores. However, in the case of Tripod scores, the relative downward trend became *more* severe rather than less severe during the PERC initiative. Therefore, we consider these negative impact findings of interest.

The impact of PERC on the value-added measure and on the RISE composite performance measure are negative but not significant.

Our subgroup analysis of the impact of PERC on the primary outcome in this domain shows mixed results. Baseline equivalence for some subgroups was too poor to allow for valid estimates. For most of the other subgroups, the estimated impact was not significant. The only two valid and significant estimates are for pairs of schools with less than the median percentage of students with IEPs and for schools that include students in grades K–5.

Staff Usage as Mediator of Treatment Effects

To better understand the negative impact that PERC has on teaching practices, we linked our PERC survey data to the measures of teacher practice. We examined whether teachers who reported various levels of usage of restorative practices differ in the impact that PERC had on their Tripod Classroom Management rating. These estimates should not be interpreted as causal, because the amount of usage is self-reported by each teacher rather than randomly assigned and therefore may be related to unmeasured teacher characteristics that have an independent impact on the teacher's Tripod measure.

First, we find that teachers who did not return the survey had the worst Tripod scores relative to their counterparts in the control schools. These teachers had Tripod Classroom Man-

Table 6.8
Teacher Performance Findings

	Impact Estimate	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Overall Attrition	Differential Attrition (treatment minus control)	Expected Effect Size Bias Due to Attrition (conservative)	Expected Effect Size Bias Due to Attrition (optimistic)	Estimation Sample Size
Primary outcome:									
Tripod Classroom Management NCE	–4.086	–0.209**	51.938	2.8%	19.2%	0.5%	–0.024	–0.019	537
Secondary outcomes:									
Tripod Composite NCE	–3.268	–0.187*	54.701	–3.7%	19.2%	0.5%	–0.024	–0.019	537
Tripod Care NCE	–2.812	–0.145+	54.940	–2.0%	19.2%	0.5%	–0.024	–0.019	537
Tripod Captivate NCE	–1.105	–0.058	53.200	–2.8%	19.2%	0.5%	–0.024	–0.019	537
Tripod Confer NCE	–3.592	–0.180*	55.274	1.2%	19.2%	0.5%	–0.024	–0.019	537
Tripod Clarify NCE	–3.405	–0.182*	55.875	–6.8%	19.2%	0.5%	–0.024	–0.019	537
Tripod Challenge NCE	–4.016	–0.202**	56.283	–6.0%	19.2%	0.5%	–0.024	–0.019	537
Tripod Consolidate NCE	–3.805	–0.200*	55.438	–7.2%	19.2%	0.5%	–0.024	–0.019	537
Tripod Trust Scale (z-score)	–0.120	–0.134	0.073	–3.3%	18.6%	0.5%	–0.023	–0.018	528
Tripod Peer Scale (z-score)	–0.165	–0.174*	0.077	–8.4%	18.6%	0.5%	–0.023	–0.018	528
Tripod Bullying Scale (z-score) (grades 6–12)	–0.191	–0.195+	–0.091	2.9%	20.1%	–2.4%	0.036	0.026	238
Tripod Climate Scale (z-score) (grades 6–12)	–0.001	–0.002	–0.090	4.9%	20.1%	–2.4%	0.036	0.026	238
Tripod Fight Question (z-score) (grades 6–12)	–0.087	–0.096	–0.181	3.6%	20.1%	–2.4%	0.036	0.026	238
Tripod Angry Question (z-score) (grades 6–12)	–0.074	–0.085	0.010	7.0%	20.1%	–2.4%	0.036	0.026	238
Tripod Slow Question (z-score) (grades 3–5)	–0.227	–0.254+	0.142	4.2%	29.5%	–3.9%	0.053	0.038	124
Value added (tested grades and subjects)	–0.711	–0.038	53.429	–20.0%	53.2%	–0.4%	0.053	0.044	156
Composite performance measure	–1.728	–0.065	215.350	–8.1%	19.5%	1.1%	–0.028	–0.021	535

Table 6.8—continued

	Impact Estimate	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Overall Attrition	Differential Attrition (treatment minus control)	Expected Effect Size Bias Due to Attrition (conservative)	Expected Effect Size Bias Due to Attrition (optimistic)	Estimation Sample Size
Primary outcome by subgroups:									
High percentage of African American students	–3.510	–0.183	48.651	–9.7%	20.6%	0.5%	–0.024	–0.020	344
Low percentage of African American students	–6.209	–0.342**	58.073	43.0%	16.8%	–0.3%	0.020	0.016	193
High percentage of students with IEPs	–1.732	–0.092	49.331	–1.6%	20.4%	0.6%	–0.025	–0.020	288
Low percentage of students with IEPs	–6.730	–0.345**	55.053	11.4%	17.8%	0.2%	–0.020	–0.017	249
High percentage of students with economic needs	–3.380	–0.175+	49.852	–7.4%	19.5%	1.0%	–0.027	–0.021	408
Low percentage of students with economic needs	–7.661	–0.420**	58.633	44.1%	18.4%	–0.8%	0.025	0.019	129
Some or all elementary school students	–4.486	–0.230*	53.843	–2.1%	20.3%	5.1%	–0.053	–0.037	345
Some or all middle school students	–3.804	–0.189+	50.142	3.3%	18.5%	–0.9%	0.025	0.020	321
Some or all high school students	–3.857	–0.194	49.571	23.0%	19.0%	–6.0%	0.058	0.039	166

NOTES: ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$; shading indicates estimate not valid because either baseline standardized difference between treatment and control groups is greater than 25 percent or because optimistic effect size bias is greater than 0.05. Normal Curve Equivalent (NCE) represents scores on a scale so that the average is 50 and the standard deviation is 21.

agement scores 6.1 NCE points lower than their non-PERC counterparts (p-value < 0.01).[1] Among the PERC teachers who completed the survey, those who reported use in the top two-thirds of usage had Tripod scores that were not significantly different from their non-PERC counterparts. For those who reported relatively low utilization, the difference from their non-PERC counterparts was less than for those who did not return the survey. For example, teachers who reported usage at the first quartile (i.e., one-quarter of teachers reported less usage and three-quarters reported more usage) had Tripod Classroom Management scores 4.1 NCE points lower than their non-PERC counterparts (p-value < 0.05). This suggests that the negative impact of PERC was primarily on teachers with very low use of restorative practices or who were too disengaged to return the survey about their usage of restorative practices.

Staff Perceptions of School Climate

PPS uses the TLC to gauge teachers' and other staff's perceptions of the climate in each school. The district reports several subscales based on constructs defined on the PPS website (PPS, 2018). In particular, the Managing Student Conduct construct aligns with the goals of PERC and we use this scale as the primary outcome for this domain. This construct is defined as, "Policies and practices to address student conduct issues and ensure a safe school environment." As is indicated by the rows in Table 6.9, this construct consists of questions on student understanding and behavior, teacher understanding and behavior, administrative behavior, and the extent to which the school is safe.

The secondary outcomes for this domain are the remaining subscales, the overall TLC composite scale, the survey items that make up the Managing Student Conduct scale, and a summative question about whether the school is a good place to work and learn.

We analyzed this information at the school level. This limits our ability to use covariates to control for baseline demographic differences among schools. The only covariates we use in our regression are the baseline value of the dependent variable and indicator variables for matched pairs.

The first row of Table 6.9 shows that there is a positive and significant impact of PERC on teachers' perceptions of the Managing Student Conduct construct. The estimated impact of PERC on this primary outcome is positive and statistically significant, driven by the positive and statistically significant impact on responses to items about whether faculty work in a safe environment and whether they understand policies regarding student conduct. We also see that PERC positively affected the overall teaching and learning composite score. This means that PERC teachers considered their schools to have better working conditions and conditions more conducive to learning than teachers did in the non-PERC schools. Not only did teachers rate the management of student conduct more positively in the PERC schools, they also rated opportunities for teacher leadership and the quality of the school leadership more favorably. Similarly, the impact estimates for the subgroups of schools are positive, but due to the limited number of schools in each subgroup, only two are statistically significant: schools with high percentages of students with IEPs and schools with high percentages of students with economic needs. In sum, we find strong evidence that PERC had positive impacts on teachers' perceptions of teaching and learning conditions.

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[1] Normal Curve Equivalent (NCE) represents scores on a scale so that the average is 50 and the standard deviation is 21.

Table 6.9
Teaching and Learning Conditions Survey Findings

	Impact Estimate (percentage points)	Impact Estimate (effect size)	Baseline Average	Baseline Standardized Difference (treatment minus control)	Estimation Sample Size
Primary outcome:					
Managing Student Conduct Composite	5.813	0.308*	69.321	6.1%	44
Secondary outcomes:					
Overall Teaching and Learning Composite	4.118	0.331*	74.178	6.4%	44
Time Composite	3.813	0.238	63.741	8.6%	44
Facilities and Resources Composite	3.815	0.304	75.237	–9.7%	44
Community Support and Involvement Composite	1.142	0.088	80.994	25.2%	44
Teacher Leadership Composite	4.877	0.331*	77.762	11.5%	44
School Leadership Composite	4.906	0.292**	74.889	19.6%	44
Professional Development Composite	2.158	0.151	77.018	0.4%	44
Instructional Practices and Support Composite	1.502	0.156	74.334	–20.4%	44
Students understand expectations for conduct	4.768	0.217	71.992	10.1%	44
Students follow rules of conduct	–1.369	–0.048	51.277	16.3%	44
Policies regarding conduct understood by faculty	8.744	0.459*	72.925	–6.5%	44
Administrators consistently enforce conduct rules	1.641	0.059	59.018	13.2%	44
Administrators support teachers' discipline efforts	5.634	0.240+	69.327	14.5%	44
Teachers consistently enforce conduct rules	5.333	0.367+	78.221	–50.5%	44
Faculty work in safe environment	2.739	0.144*	82.044	18.4%	44
Primary outcome by subgroups:					
High percentage of African American students	5.049	0.274	67.376	–5.4%	30
Low percentage of African American students	8.042	0.404+	73.487	28.4%	14
High percentage of students with IEPs	8.261	0.528*	69.511	–4.0%	26
Low percentage of students with IEPs	0.169	0.007	69.046	15.7%	18
High percentage of students with economic needs	8.318	0.471*	68.878	–2.2%	32
Low percentage of students with economic needs	0.734	0.032	70.502	22.5%	12
Some or all elementary school students	4.405	0.216+	68.162	21.0%	32
Some or all middle school students	8.382	0.457+	66.859	–24.3%	26
Some or all high school students	19.141	1.375**	67.942	–81.6%	10

NOTES: ** $p < 0.01$; shading indicates estimate not valid because baseline standardized difference between treatment and control groups is greater than 25 percent.

CHAPTER SEVEN

Likelihood of Sustainability

In this chapter, we address our third research question: How likely is it that PERC will be sustained in the PPS school district?

PPS affirmed its commitment to be a restorative practice district in its 2017–2022 strategic plan. The district intends to sustain PERC in the 22 treatment schools and scale it to all of the other 32 schools. The goal is for all schools to use restorative practices in the 2018–19 SY. There are many reasons to believe that the district will be successful in this regard. As recently as 2017, staff in the PERC schools had, on average, bought into the use of restorative practices. These staff were confident in using restorative practices, and most staff in the PERC schools had tried at least one element of restorative practices during the two-year implementation period. However, there are also indications that scaling and sustaining the use of restorative practices will be challenging. In this chapter, we describe efforts the district has put in motion to sustain and scale PERC, followed by challenges to these efforts as noted by our interviewees and suggested by our data.

District Efforts to Sustain and Scale PERC

District leaders created a working group to help ensure that PERC would be sustained and scaled up. This group included school-based and central office staff and has been meeting since early 2018. The group has been discussing how best to build capacity in the district, modify the IIRP model for PPS schools, support schools through implementation, and align restorative practices to existing resources and initiatives. In the next sections, we describe plans related to training, PLGs, school leadership, coaching, project management, and alignment of restorative practices to other initiatives.

Training

During the 2017–18 SY, an additional ten schools received a shortened one-day version of the Introduction to Restorative Practices and Circles training that staff at the original 22 treatment schools had received, led by IIRP trainers with support from district trainers.

These district trainers were in the process of going through a three-day Train-the-Trainer program led by IIRP. As of April 2018, 24 district staff members had completed this course and were considered licensed trainers. These staff will conduct all of the restorative practice training district-wide going forward. This approach was described by interviewees as cost-effective for the district, not just in terms of not having to pay external trainers but also because

district staff should better understand the needs and concerns of their peers and can tailor trainings to address those needs.

The remaining district schools received restorative practice training in spring and summer 2018. The district reduced the content of the two trainings so that the first can be conducted in three hours and the second within six and one-half hours. (The original IIRP training sessions each lasted eight hours.) School staff who miss their school's trainings will have an opportunity to complete the training later in the school year. The district's project manager conducts both trainings monthly. These trainings are primarily for new staff, but also open to community members. While these trainings are available, there is currently no requirement that an individual joining a school must complete them.

Professional Learning Groups

All schools are expected to continue with PLGs focused on restorative practices. The non-PERC schools will initiate these groups in the 2018–19 SY and have received *The Restorative Practices Handbook* to use in their PLGs (as the PERC schools did). Though some central office staff expressed that PERC schools should be continuing their PLGs, the majority of the PERC school staff interviewed in April 2018 explained that they no longer had PLGs. A few noted that their PLGS had been replaced by PLCs—professional learning communities—whose focus is on strengthening teaching in an academic content area. Others explained that they had gone through all of the resources they had for their PLGs and would need new material if they were to continue.

School Leadership

As noted earlier, PERC school staff were more likely to use restorative practices if they had support from their school leaders. All of the PERC schools had been asked to set up restorative leadership teams (RLTs) to oversee implementation. The central office staff we interviewed were unsure whether non-PERC schools will be expected to have a restorative leadership team. While some of the PERC school interviewees relayed that their RLT still meets, those that did often mentioned that the team's focus in 2017–18 was on implementing Positive Behavior Interventions and Supports (PBIS).

Although there was a lack of clarity around the RLTs, the district is matching principals in non-PERC schools with principals in PERC schools. The hope is that principals who are experienced with and excited about restorative practices will share best practices with their mentee principal and help them to troubleshoot as problems arise. As of mid-April 2018, some, but not all, of the principals were aware of whom they had been paired with.

Coaching

With the conclusion of the grant, schools will cease to receive coaching support from IIRP. Currently, all district schools are supported by a learning environment specialist (LES)—a position that existed before PERC—whose role is to help school staff create a positive teaching and learning environment. Some LESs are based within and support one school, while others are based within the central office and support up to 14 schools. As part of their role, LESs are expected to help coach school staff in how to use restorative practices and how to relate restorative practices with other district initiatives (e.g., PBIS and social and emotional learning).

Central Office Project Manager

The district has retained the project manager role to support all schools with implementing restorative practices and hired a new person to replace the original project manager, who took a position in another school district. In addition to conducting trainings, he supports the LESs with coaching, works with a parent advisory council to help spread the word about restorative practices to parents, and assists with implementation in schools. To support the latter, district staff created implementation scales to help schools assess the extent to which they are implementing restorative practices. For indicators of implementation, such as "proactive circles," school leaders determine whether they are in a preplanning, initiating, deepening, or sustaining phase. After the schools use this tool to self-assess, the project manager can identify areas in need of support and next steps.

Aligning Restorative Practices with Other District Resources, Initiatives, and Procedures

District staff have been working to incorporate restorative practices into district resources and tools. The district's 2017–18 Student Code of Conduct was revised to include the fundamental principles behind restorative practices, the benefits to following them, and how they can be used in response to infractions. The revised code of conduct also includes references to PBIS and proactive strategies that teachers can use to help prevent student misbehavior. LESs have created a PBIS-restorative practices crosswalk that maps how certain PBIS elements can be done in a restorative fashion. Finally, the project manager is part of the district team that visits schools on a rotating schedule to conduct instructional reviews. The project manager assesses the use of restorative practices and, after a review, an action plan is created that may include steps to strengthen them.

Challenges

Though staff across the district are generally united in their belief in the benefits of restorative practices, we identified a number of challenges that may impede scaling up implementation and sustainability. Expanding the practices to all schools, while phasing out support from IIRP, was an acknowledged challenge by interviewees. They discussed three challenges in particular: lack of time, inadequate training and support, and unclear expectations.

Lack of Time

Other district initiatives, such as professional learning communities on curriculum and PBIS, compete for staff time. As one interviewee noted, "Implementation of RP has been watered down because we have so many other initiatives in the district. Having to do all the different practices becomes overwhelming." Some noted, however, that restorative practices and PBIS can work well together, and are doing so in schools well versed in both. We did not learn of any district initiatives that were misaligned with the goals or elements undergirding restorative practices.

Insufficient Training Resources and Support

While most of the district trainers we interviewed thought that the trainings they had led were well received, many also described ways in which the trainings could be improved. Some district trainers noted that they would like more time to prepare to lead a training. A couple of

them stated that they were only given two days of notice that they would be leading a training, which did not allow them sufficient time to tailor the content to the school. This might be particularly important early on, because the Train-the-Trainer sessions assumed that the trainers would be teaching a full-day session of Introduction to Restorative Practices and a full day of Introduction to Circles. Because the district trainings were shortened, some trainers noted that extra preparation was required to ensure that they carefully modified content. Many district trainers recommended that the training groups be reduced to a maximum of 40 staff per trainer. During some of the spring 2018 trainings, there were 60–70 people in a room, and the space they were given would not allow for a circle that large. Another suggestion was to include videos within the trainings so that trainers could more effectively demonstrate what some of the practices look like. While the original IIRP trainings included videos, they were cut from the district training.

Unclear Expectations

Though the district has committed to continuing restorative practices in PERC schools and expanding it to non-PERC schools, there is a good deal of uncertainty around what this means. There appears to be limited communication specifying what parts of the original model PERC schools are expected to continue and non-PERC schools are expected to adopt. Central office staff acknowledged that they have not clearly communicated expectations to PERC schools. One stated, "We've continued to give that message that schools should have PLGs, but we still have to work out the expectations, accountability, and support around that." In the four PERC schools where we interviewed school-based staff in April 2018, most stated that they still use affective statements and circles, but that implementation varied from teacher to teacher and there were no defined expectations. As one staff member noted:

> With so many other things on teachers' plates, RP has fallen off. That saddens me. . . . If PLGs' work is done, then what is next? Will we do a book study around a restorative practice? We're all waiting for someone to tell us; I'm struggling with that. . . . We need guidance from the district's upper levels on what needs to be done in the original 22 PERC schools.

Recommendations on Scale and Sustainability

Here we provide PPS with four recommendations to scale and sustain PERC. These recommendations might also be useful for other districts that have begun implementing restorative practices.

Set Clear Expectations

Interviewed staff want clear expectations for school leaders, teachers, and staff on what they should be doing to sustain restorative practices and how the district will hold them accountable for this work. We recommend that the district set clear expectations on training for school leaders, coaching from experts, and PLG participation. In particular, we recommend that teachers participate in one PLG each month focused on restorative practices. This experience, plus receiving support from school leaders and coaches, correlated with teacher and staff use of restorative practices.

Focus on School Leaders

As noted earlier, school staff who received support from school leaders were more likely to use restorative practices. This support came in the form of modeling the practices, observing staff and providing feedback, and providing resources. The steps the district is taking now to support the schools that have not been involved in PERC are good ones, including the plans to provide peer mentoring and support to school leaders. Some interviewees expressed concerns that this was not happening quickly enough, however, as the following quote makes evident:

> The school leadership didn't go through TTT [Train the Trainer] training; and it's been a hard place to be in. It's difficult to be work effectively as a LES, responsible for RP training and implementation in the school, when the school administrator doesn't understand RP.

Ideally, the school leader would have a strong grounding in restorative practices before staff are asked to implement them.

Continue Training, Coaching, and Professional Learning Groups

As noted previously, staff who received coaching and participated in at least one PLG per month were more likely to use restorative practices. Although we cannot be certain that this relationship is causal, these are likely important supports for restorative practice implementation. The district trainers have provided recommendations on how their training could be more effective. We recommend that the district provide more time for trainers to prepare, ask them to train no more than 40 people at a time, and provide them with videos on the use of restorative practices in similar settings. We also recommend that the district continue with a coaching model. The LESs are playing an important role in this regard, as is the district's project managers. To the extent possible, the district should augment this coaching by bringing in external experts who have used restorative practices in other settings. Indeed, the IIRP coaches were well received and interviewees noted the importance of working with neutral, external partners, particularly when coaching a school principal or providing feedback to teachers. Regarding the PLGs, it is likely that teachers and staff who experienced them during the two years of PERC could provide valuable feedback on how to implement them in the schools just beginning them and on how to continue them with new lesson plans in the original PERC schools.

Provide Support from the Central Office

It is unlikely that school leaders will be trained, external coaches will be hired, or that PLGs will be successful without central district office support. Indeed, there is already a restorative practices project manager in the central office whom interviewees described as "essential." However, interviewees asked that the district do more. There is a desire for more coaching, for example, and for new PLG materials for the PERC schools. One teacher noted the need for support as follows:

> If they [the district] don't provide schools with support, RP will disappear. This is what happens in this district. They give us something and they either don't give us everything we need to fully implement it, or they back off [in their level of support for an initiative] and staff stop doing it because something new (another initiative) takes its place. That's what's happening now with PBIS. We already know that something new is coming along. And when they back off of PBIS, there will be something else new to come along. If the district doesn't support these schools, RP will not be around in these schools in five years.

CHAPTER EIGHT

Conclusions and Implications

There were several objectives associated with PERC. By using restorative practices, students and staff were to learn more about how their actions affect others. This understanding, in turn, was to help students recognize why a particular behavior was inappropriate or hurtful, and why they were being held accountable for their behavior. Both students and staff should have developed greater empathy for others, as they learned about how their behaviors affected those around them. This, in turn, should have improved relationships among students and between students and staff, as well as the classroom and school climate. Better relationships with others should have lessened misbehaviors. Less misbehavior would mean fewer suspensions and a safer school environment. Fewer suspensions should increase instructional time, which might lead to improved academic outcomes and attainment for the students who otherwise would have been spending more time outside of school.

We were unable to determine whether or not all of these objectives were met. We did not interview or survey students and do not know the extent to which they became more aware of their impact on others or more empathetic. Neither do we know how many students experienced restorative practices, nor to what degree. We do have measures of classroom and school climate, but our measures of misbehavior are blunt. As noted in the limitations section, we do not have measures of referrals, which could have provided a more complete picture of changes in student behaviors than do suspension rates. Many more students are given referrals for inappropriate behavior than are suspended, and the use of restorative practices might have decreased referral rates.

We do present three conclusions on PERC, noting that PERC represents a particular restorative practices program that was augmented by district and school support. We found that the capacity-building efforts by IIRP, the district, and the schools succeeded in generating knowledge of, buy-in for, confidence in, and use of restorative practices. We found that the climate in PERC schools had improved compared with the climate in the control schools. And we found that the number of days lost to suspension declined, as did the disparities in suspension rates by race and by income. This decline was most apparent in elementary grades.

Capacity-Building Efforts Were Successful

As described above, staff in the PERC schools received training on and support in implementing restorative practices in several ways. IIRP provided four days of professional development; all PERC staff were asked to attend two of these days, and the other two were voluntary. Throughout the two-year implementation period, IIRP distributed books on restorative practices to all PERC school staff and distributed videos, posters, and other supporting materials to each school. Each PERC principal was assigned an IIRP coach. PERC principals were asked to

establish restorative leadership teams (RLTs), and the coaches were asked to schedule monthly calls with these teams to monitor progress and address challenges. The coaches also visited each of their schools at least twice during each school year. All PERC school staff were asked to participate in (at least) monthly professional learning groups (PLGs). The project manager in the district coordinated these efforts and provided additional support to the PERC schools.

The only type of support that did not appear to work well was the bimonthly telephone calls that the IIRP coaches were to have with the RLTs at each school. It may be that coaching by phone proved difficult before strong relationships among the conference call participants could be established. It may also be an unrealistic expectation to have effective reflective and diagnostic conference calls during the school day when staff are likely to have competing demands.

Other efforts, however, appear to have paid off. Almost all PERC staff developed at least some understanding of restorative practices over the two-year implementation period. Staff bought into these practices at the end of Year 1, and this buy-in did not flag. Staff used the restorative practices often, particularly by means of affective statements, proactive circles, and impromptu conferences and/or responsive circles. In the PERC schools, averaging across both years of implementation, 49 percent of staff reported using affective statements often or always, 69 percent reported using proactive circles often or always, and 44 percent reported using impromptu conferences or responsive circles often or always. Use of restorative practices increased in the second year overall, driven by an uptick in the middle and high school grades. This may be partly because staff were confident that they understood and could use restorative practices; their confidence grew in the second year as well.

Staff who attended the PLGs, received coaching from IIRP, and/or received support from a school leader were more likely to use restorative practices. So were staff who reported that they understood the 11 essential elements of restorative practices. We demonstrated that this understanding was associated with PLG attendance; it likely also sprang from attending training and receiving coaching and support.

PERC Improved the Overall School Climate, as Rated by Teachers

We found strong evidence that PERC had positive impacts on teachers' perceptions of teaching and learning conditions. Responses to the district's TLC Survey indicated significantly higher ratings of conduct management, teacher leadership, school leadership, and overall teaching and learning conditions in the PERC schools than in control schools. The impact of PERC on conduct management is driven by the positive and statistically significant impact on responses to items about whether faculty work in a safe environment and whether they understand policies regarding student conduct. PERC positively affecting the overall teaching and learning composite score means that PERC teachers considered their schools to have better working conditions and conditions more conducive to learning than did teachers in the non-PERC schools. PERC staff also reported in our survey that they had stronger relationships with students because of restorative practices. Although classroom climate, based on TRIPOD student survey results, was rated lower in PERC schools overall, teachers who used restorative practices were rated not significantly lower than those in comparison schools.

PERC Reduced the Average Suspension Rate for PERC Schools, Mostly Due to Reductions in Suspensions of Elementary Grade Students

Although suspension rates have gone down in the district overall, PERC further reduced both the number of days that students were suspended as well as the number of suspensions. Not only were PERC students less likely to be suspended, but they were less likely to be suspended multiple times. Days lost to suspension in the non-PERC schools declined by 18 percent from the 2014–15 SY to the 2016–17 SY, but in the PERC schools, they declined by 36 percent. Another way to look at suspensions is by the percentage of students who were suspended. In the 2014–15 SY, 16 percent of students were suspended. In the 2016–17 SY, 13 percent of students in PERC schools were suspended, compared with 15 percent in control schools. Moreover, PERC reduced the rate at which students were sent to alternative schools. Students in the PERC schools experienced more school days because they were less likely to be suspended or transferred to other schools than were students in the control schools.

These declines were driven by decreases in suspension rates for elementary students. Suspension rates for middle school students were not different in the PERC schools than they were in the control schools. We also see higher attendance rates for students in the elementary grades, which partly reflects fewer suspensions but might also be an indicator of improved school or classroom climates.

PERC also reduced disparities in suspension rates by race and income. Fewer African American and low-income students were suspended in the PERC schools than in control schools. We did not see a reduction in suspension rates for students with IEPs, however.

We saw a reduction in suspension rates for nonviolent behavior, but not for violent behavior. Neither did we see a reduction in arrests. This might be because teachers have more discretion to implement a restorative punishment for nonviolent behavior, whereas the district's code of conduct requires a suspension for violent behavior. If restorative practices are to curb the most violent behavior and to improve school safety overall, it might take more time than the two years of this study.

Indeed, it is difficult to know whether student behavior improved because of PERC, because schools were choosing to punish students without suspending them, or both. Surveyed PERC staff did not think that PERC was affecting student behavior. However, they did report that their relationships with students had improved because of PERC. It could be that better student-to-staff relationships will lead to improved student behaviors over time.

We do not see that academic outcomes improved in the PERC schools. Even though students were suspended less, achievement did not improve for students in these schools.

Implications

Because we do see reductions in suspension rates and in disparities in those rates by race and by income, we consider the impact of using restorative practices to be promising, particularly for elementary students. We provide recommendations here for other districts considering implementing something similar to PERC.

- To address time constraints, emphasize restorative practices that can be woven into the school day. Teachers can use affective statements while they are teaching, for example. They can also use circles to simultaneously build community and convey core academic

content. The IIRP coaches had other suggestions for restorative practices that were not time-consuming, such as standing at the door as students enter and welcoming each student by name.

- Set expectations at the district level for how school staff will implement restorative practices. For example, a district might require professional development for specified staff members, or that teachers meet regularly in professional learning communities on restorative practices. Setting expectations, and then visiting schools to check in, might help busy school leaders prioritize restorative practices.
- Ensure that school leaders understand and can model restorative practices. School staff who received modeling and/or feedback from school leaders were more likely to use restorative practices.
- Provide mandatory professional development. The mandatory professional development sessions provided on the basics of restorative practices and on how to run circles—an essential element of the practices—were well attended and rated by participants.
- Provide books and other supporting materials, such as videos, restorative questions cards, and talking pieces, on restorative practices. Staff reported receiving these materials and finding them useful.
- Provide coaching by an experienced coach to a school each year. Each PERC principal was assigned an IIRP coach to support the school during the two-year implementation period. Initially, the plan was for each coach to visit the school twice each year. However, principals requested more-frequent visits and were allowed more in the second year. The staff who interacted with these coaches were more likely to use restorative practices (although this is a correlation, meaning that those who were already using restorative practices might have been more likely to seek additional coaching). In interviews, PERC school staff noted the importance of having an external, highly practiced coach provide objective feedback and experience-based modeling.
- Establish a mechanism for school staff to meet at least once per month as a professional learning community on restorative practices. PERC school staff who participated in monthly professional learning groups were more likely to understand and use restorative practices.
- Ensure that leaders at the district level can manage this work. The restorative practices project manager at the district level coordinated multiple aspects of PERC, including the trainings and coach visits. The project manager also provided supplementary materials and coaching. Without this level of support and oversight, it is unlikely that the schools could have implemented PERC.
- Implement data collection systems to collect accurate information on all types of behavioral incidents and remedies. In particular, teachers and other staff should have a system in which they can record incidents, both minor and major, and responses, such as referrals to the principal, detentions, and in-school suspensions. These data are necessary to monitor whether restorative practices are being implemented and whether they are having the desired impact.

Technical Appendix: School Staff Surveys

Year 1 Survey (June 2016)

1. The National Institute of Justice is funding your school district to implement and evaluate restorative practices. Your participation in this survey is important. Below are answers to some general questions you might have about the survey.

   HOW LONG WILL THIS TAKE?
   We estimate the survey will take about 25-30 minutes to complete.

   WHY SHOULD YOU PARTICIPATE IN THIS SURVEY?
   This survey will provide a clear understanding of how restorative practices have been implemented in your school during this past school year. Not only will your responses aid the current effort in Pittsburgh Public Schools by informing future needs and actions, but also they will help inform and shape the implementation of similar efforts around the country. ***You will also receive a $20 Amazon.com gift card as a token of appreciation for completing the survey.*** The gift card will be emailed to you within one week of completion.

   WHO IS BEING ASKED TO TAKE THIS SURVEY?
   All staff in the 22 schools that are implementing restorative practices are being asked to take this survey. Your participation is voluntary. However, we hope you will participate.

   WHAT IS THE PURPOSE OF THIS SURVEY?
   The purpose of this survey is to obtain information from school staff about their experiences with restorative practices.

   WHO IS CONDUCTING THIS SURVEY?
   The RAND Corporation is conducting this survey.

   WILL YOUR RESPONSES BE KEPT CONFIDENTIAL?
   Yes. Your responses will not be shared with anyone working in your school, school district, IIRP, or anyone else outside of the RAND research team. All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose. De-identified data will be archived at the National Archive of Criminal Justice Data in accordance with our data archiving plan.

   HOW WILL YOUR INFORMATION BE REPORTED?
   The information you provide will be combined with the information provided by others in statistical reports. No individually identifiable data will be included in the statistical reports.

If you have any questions about the study, please contact the Principal Investigator,

Catherine Augustine at 412-683-2300 x4998 or by email at cataug@rand.org.

If you have any issues with the survey or technical questions, please contact Geoffrey Grimm at 703-413-1100 x5877 or by email at ggrimm@rand.org.

If you have any questions or concerns about your rights as a research subject, please contact the Human Subjects Protection Committee at RAND, 1776 Main Street, PO Box 2138, Santa Monica, CA 90407, 310-393-0411 x6124, or by email to Sandra Berry at berry@rand.org.

Taking this survey:
To navigate throughout the survey, please use the "next" and "back" buttons on each page. If you wish to stop and return later to complete the survey use the "logout" button and your responses will be saved. To login again, please use the link you have received in your email along with the same login pin and password. You will be taken to the last page you completed on the survey. A red asterisk indicates questions that are used for routing purposes later in the survey. Your participation is voluntary and you are not required to answer any survey item; however, only surveys taken through to the completion page are eligible for the Amazon gift card.

WE APPRECIATE YOUR TIME AND INPUT! WE HOPE YOU WILL ANSWER EVERY QUESTION.

*

- ○ Yes, I wish to participate by completing this survey.
- ○ No, I do not wish to participate in this study.

2. Which of the following best describes your current, *primary* role at your school?*
   - ○ Classroom Teacher (ELA, mathematics, special education, alternative education, etc.)
   - ○ Administrative (principal, assistant principal, administrative assistant, etc.)
   - ○ Student Support (certified staff without a classroom, academic coach, special education support, coach, instructional strategist, etc.)
   - ○ Certified Non-Teaching Position (social worker, counselor, librarian)
   - ○ Not Certified Non-Teaching Position (nurse, student resource officer, custodian, paraprofessional, food service staff)

Page 3

3. You indicated that you are a classroom teacher. Please select all the grades you currently work with below.
   (Check all that apply)
   - ☐ Pre-K
   - ☐ K
   - ☐ 1st Grade
   - ☐ 2nd Grade
   - ☐ 3rd Grade
   - ☐ 4th Grade
   - ☐ 5th Grade
   - ☐ 6th Grade
   - ☐ 7th Grade
   - ☐ 8th Grade
   - ☐ 9th Grade
   - ☐ 10th Grade
   - ☐ 11th Grade
   - ☐ 12th Grade

4. Please provide your total years as a teacher, irrespective of location:

5. Thinking back over the entire school year, please indicate how often the following items apply to your school.

	Never	Rarely	Sometimes	Often	Always
The environment is conducive to learning	○	○	○	○	○
Staff treat other staff with respect	○	○	○	○	○
Staff treat students with respect	○	○	○	○	○
Students treat staff with respect	○	○	○	○	○
Parents treat staff with respect	○	○	○	○	○
Students are threatened by other students in my school	○	○	○	○	○
Students are bullied by other students in my school	○	○	○	○	○
Students physically fight with one another in my school	○	○	○	○	○
Gang activity is a problem in my school	○	○	○	○	○

6. Please indicate to what extent you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I believe that restorative practices can help to improve student behavior.	○	○	○	○
The majority of staff in this school believes that restorative practices can help improve student behavior.	○	○	○	○
Learning restorative practices is worth my time.	○	○	○	○
Adopting restorative practices is worthwhile for my school.	○	○	○	○
I am confident that I know the purpose of restorative practices.	○	○	○	○
I am confident that I know the restorative practice methods.	○	○	○	○
I am confident in my ability to use restorative practices with the majority of students in my school.	○	○	○	○
Student behavior in my school has generally improved this year.	○	○	○	○
Student behavior in my school has improved **as a result of restorative practices.**	○	○	○	○
The school culture/climate has generally improved this year.	○	○	○	○
The school culture/climate has improved **as a result of restorative practices.**	○	○	○	○
The way that students handle conflicts **with adults** has improved as a result of restorative practices.	○	○	○	○
The way that students handle conflicts **with other students** has improved as a result of restorative practices.	○	○	○	○
The way that adults handle conflicts **with other adults** has improved as a result of restorative practices.	○	○	○	○

7. Please indicate the extent to which you feel you understand the elements of restorative practices.

7. Please indicate the extent to which you feel you understand the elements of restorative practices.

   - ○ I do not understand restorative practices
   - ○ I know what some of the elements are, but I could not define them
   - ○ I know the 7 elements we learned this year
   - ○ I know the 7 elements and could explain them to a peer
   - ○ I could train another person to use the 7 elements I have learned this year

8. Please indicate your agreement with the following statement: The same behaviors that received a suspension last year also receive a suspension in my school this year.

   - ○ Yes.
   - ○ No, behaviors that resulted in a suspension last year are not receiving suspensions this year
   - ○ No, behaviors that did not result in a suspension last year are receiving suspensions this year
   - ○ I did not work at this school last year

9. Please indicate the extent to which you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I am confident in my ability to use restorative practices in my classroom.	○	○	○	○
Student behavior in my classroom has improved as a result of restorative practices.	○	○	○	○
In my classroom(s), culture/climate has improved as a result of restorative practices.	○	○	○	○

10. Are you a member of your school's Restorative Leadership Team?

    - ○ Yes
    - ○ No

11. Have you participated in a professional learning group (PLG) this year for restorative practices?*

    - ○ Yes
    - ○ No

12. How often did your PLG meet?

    - ○ Once a semester or once a year
    - ○ Two to three times a semester
    - ○ Once a month
    - ○ Twice a month
    - ○ Three or more times a month

13. Please indicate to what extent the following statements are true for you.

	Not at all true	Slightly true	True about half the time	Mostly true	Completely true
It was clear what was supposed to be covered in each PLG.	○	○	○	○	○
The PLG was able to cover the entire agenda each session.	○	○	○	○	○
The PLGs I participated in helped me to better **understand** restorative practices.	○	○	○	○	○
The PLGs I participated in helped me to better **implement** restorative practices	○	○	○	○	○
The PLGs strengthened my relationship with my colleagues.	○	○	○	○	○

14. The professional development days over summer 2015 (either day) were sufficient to begin implementing restorative practices in my school.
    - ○ Strongly Agree
    - ○ Agree
    - ○ Neither Agree nor Disagree
    - ○ Disagree
    - ○ Strongly Disagree
    - ○ I did not attend

15. The materials I received from IIRP (books, posters, questions cards, etc.) were useful over this past year in implementing restorative practices.
    - ○ Strongly Agree
    - ○ Agree
    - ○ Neither Agree nor Disagree
    - ○ Disagree
    - ○ Strongly Disagree
    - ○ I did not receive any IIRP materials

16. My school's IIRP coach was responsive when I requested information/assistance with restorative practices.
    - ○ Strongly Agree
    - ○ Agree
    - ○ Neither Agree nor Disagree
    - ○ Disagree
    - ○ Strongly Disagree
    - ○ I did not request information/assistance from my IIRP coach

17. My school's IIRP coach provided the following support outside of professional development training days (e.g., during coaching visits):
    (Check all that apply.)
    - ☐ Providing additional general information about restorative practices
    - ☐ Answering specific questions about implementing restorative practices
    - ☐ Modeling restorative practices
    - ☐ Providing feedback based on observing my use of restorative practices
    - ☐ I did not receive any support from our IIRP Coach outside of PD days
    - ☐ Other, please specify
    - _____

18. My school's principal and school leadership team (administration) provided the following support outside of PLGs:
(Check all that apply.)
- ☐ Providing additional general information about restorative practices
- ☐ Answering specific questions about implementing restorative practices
- ☐ Modeling restorative practices
- ☐ Providing feedback based on observing my use of restorative practices
- ☐ I did not receive any support from the leadership team outside of PLGs
- ☐ Other, please specify

19. Please check the factors that represent the most significant challenges you have faced to date in implementing restorative practices.
(If there is one or more significant factors for you that is not listed here, please select "Other" and specify)
- ☐ Time constraints
- ☐ Lack of buy-in/belief RP can work
- ☐ Limited training (training not sufficient for implementation)
- ☐ Lack of administrative support
- ☐ Student attitudes
- ☐ Unclear discipline policy (unsure how RP fits into discipline policy)
- ☐ Lack of understanding of expectations
- ☐ Leadership/staff turnover
- ☐ Other, please specify

20. Please indicate the frequency of the following statements as they apply to **affective statements:**
Affective statements are personal expressions of how a positive or negative behavior has affected you.

	Not at all	**Rarely**	**Sometimes**	**Often**	**Always**
I use affective statements informally throughout the day.	○	○	○	○	○
I use "I" statements to express my feelings.	○	○	○	○	○
Students use "I" statements to express their feelings.	○	○	○	○	○
I actively encourage students to express their feelings.	○	○	○	○	○
Students use affective statements to express how they are impacted by others' behavior.	○	○	○	○	○
When providing positive or negative feedback, I identify specific and concrete behaviors.	○	○	○	○	○
I deliver feedback in a personalized manner directly to the student who impacted others.	○	○	○	○	○
I distinguish the deed from the doer.	○	○	○	○	○
Affective statements are a part of "how we do things" at our school.	○	○	○	○	○

21. My colleagues use affective statements.
    - Not at all
    - Rarely
    - Sometimes
    - Often
    - Alway
    - Unsure

22. Please indicate the frequency of the following statements as they apply to **restorative questions:**
    Restorative questions are two sets of prescribed questions designed to challenge the negative behavior of the wrongdoer while separating the deed from the doer and engaging those who were harmed.

	Not al all	Rarely	Sometimes	Often	Always
I use restorative questions informally throughout the day.					
I respond to negative behaviors using the restorative questions.					
I ask the questions in a nonjudgmental way that communicates a desire for understanding.					
I engage those who were harmed when I deal with an incident.					
I provide opportunities for those who were harmed to be heard and to have a say in what needs to happen to make things right.					
I distinguish the deed from the doer.					
I ask the wrongdoer to identify who has been harmed and what harm was done.					
I ask the wrongdoer what needs to be done to make things right.					
Restorative questions are a part of "how we do things" at our school.					

23. My colleagues use restorative questions.
    - Not at all
    - Rarely
    - Sometimes
    - Often
    - Always
    - Unsure

24. This question asks about **proactive circles.** For your reference, proactive circles are ritualistic relationship-building activities with clear expectations, done in a circle configuration. Topics include goal setting, academic content, classroom norms, behavioral expectations, or other "fun" topics.

    How many proactive circles have you run per week, on average, over the entire school year?*

25. My colleagues use small proactive circles.
    - ○ Not at all
    - ○ Rarely
    - ○ Sometimes
    - ○ Often
    - ○ Always
    - ○ Unsure

26. Proactive circles are a part of "how we do things" at our school.
    - ○ Not at all
    - ○ Rarely
    - ○ Sometimes
    - ○ Often
    - ○ Always

27. Please indicate the frequency of the following statements as they apply to **proactive circles:**

	Not at all	**Rarely**	**Sometimes**	**Often**	**Always**
I use circles to provide opportunities for students to share feelings, ideas, and experiences.	○	○	○	○	○
In a given week, I hold more proactive circles than responsive circles.	○	○	○	○	○
In the circles, only one person speaks at a time.	○	○	○	○	○
In the circles, participants are focused on an explicit topic.	○	○	○	○	○
I model desired behaviors and responses for the participants within the circle.	○	○	○	○	○
I set a positive tone when I begin a circle.	○	○	○	○	○
I am ready with a response to participants who ask to "pass."	○	○	○	○	○
I sit *in* the circle.	○	○	○	○	○
I pick topics that encourage risk taking.	○	○	○	○	○

28. For each bi-monthly period below, please indicate the general frequency that you held any type of circle (proactive or responsive).

	Never	**Rarely**	**Sometimes**	**Often**	**Always**
August/September (2015)	○	○	○	○	○
October/November (2015)	○	○	○	○	○
December/January (2015/16)	○	○	○	○	○
February/March (2016)	○	○	○	○	○
April/May (2016)	○	○	○	○	○
Currently	○	○	○	○	○

29. The next question refers to **impromptu conferences**. For your reference, small impromptu conferences/conversations are questioning exercises designed to resolve lower-level incidents before they escalate. These are held spontaneously or with little planning and often are structured around the restorative questions.

    How many impromptu conferences have you run per week, on average, over the entire school year?*

    _____

30. My colleagues use small impromptu conferences.
    - ○ Not at all
    - ○ Rarely
    - ○ Sometimes
    - ○ Often
    - ○ Always
    - ○ Unsure

31. Small impromptu conferences are a part of "how we do things" at our school.
    - ○ Not at all
    - ○ Rarely
    - ○ Sometimes
    - ○ Often
    - ○ Always

32. Please indicate the frequency of the following statements as they apply to **impromptu conferences:**

	Not at all	**Rarely**	**Sometimes**	**Often**	**Always**
When addressing misbehavior between students, I structure the conversation using restorative questions.	○	○	○	○	○
I facilitate a small impromptu conference when a lower level incident occurs.	○	○	○	○	○
When facilitating a small impromptu conference, I encourage students to do most of the thinking.	○	○	○	○	○
I encourage students to use affective statements in response to the restorative questions.	○	○	○	○	○
I ask students to take specific actions to repair the harm.	○	○	○	○	○
I use a respectful tone and avoid lecturing.	○	○	○	○	○

33. Please indicate the frequency of the following statements as they apply to **fair process:**
Fair process: individuals are more likely to trust and cooperate fully with systems, even ones that make decisions they do not agree with, if they believe the process to arrive at the decision was fair.

	Not at all	Rarely	Sometimes	Often	Always
I use fair process in decision-making.	○	○	○	○	○
I use fair process when I make decisions that affect my students.	○	○	○	○	○
I actively engage students and ask for their input.	○	○	○	○	○
Students' input impacts my decision-making.	○	○	○	○	○
I explain the reasoning behind decisions that affect students.	○	○	○	○	○
After I make a decision, I state new expectations and consequences if those expectations are not met.	○	○	○	○	○
Fair process is a part of "how we do things" at our school.	○	○	○	○	○

34. My colleagues use fair process.
- ○ Not at all
- ○ Rarely
- ○ Sometimes
- ○ Often
- ○ Always
- ○ Unsure

35. Please indicate the frequency of the following statements as they apply to the **reintegrative management of shame:**
Reintegrative shame expresses disapproval but does not punish the offender out of the community. This type of shame rejects the act but not the person and allows for the person to be reintegrated back into the community.

	Not at all	Rarely	Sometimes	Often	Always
I listen to what the person experiencing shame has to say.	○	○	○	○	○
I acknowledge the feelings of a person experiencing shame.	○	○	○	○	○
I encourage those experiencing shame to express their feelings.	○	○	○	○	○
I encourage the person experiencing shame to move beyond his or her shame response.	○	○	○	○	○
I avoid stigmatizing and labeling others.	○	○	○	○	○
I examine and monitor my own shame responses.	○	○	○	○	○
I can identify the type of shame responses on the compass of shame.	○	○	○	○	○
Reintegrative management of shame is a part of "how we do things" at our school.	○	○	○	○	○

36. My colleageus use reintegrative management of shame.
    - ○ Not at all
    - ○ Rarely
    - ○ Sometimes
    - ○ Often
    - ○ Always
    - ○ Unsure

37. Please indicate the frequency of the following statements as they apply to your **staff community:**

	Not at all	**Rarely**	**Sometimes**	**Often**	**Always**
I use affective statements with other staff members.	○	○	○	○	○
I use restorative questions to resolve staff conflicts and repair harm done to staff relationships.	○	○	○	○	○
We use proactive circles to build a healthy staff community.	○	○	○	○	○
We use responsive circles to deal with conflicts that arise among staff members.	○	○	○	○	○
We use fair process in situations where participatory decision-making is appropriate.	○	○	○	○	○
The school administration models restorative practices.	○	○	○	○	○
I have a deep understanding of the fundamental hypothesis and how it relates to the other essential elements.	○	○	○	○	○
As a staff we meet the criteria of a high quality restorative staff community.	○	○	○	○	○

38. Please indicate your perceptions on how students feel about restorative practices.

	Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**
Students generally enjoy proactive circles.	○	○	○	○
Students engage with the restorative questions.	○	○	○	○
Students seem to understand the goal of restorative practices.	○	○	○	○
Students seem to respect restorative practices.	○	○	○	○

39. Please indicate the frequency of the following statements as they apply to the **fundamental hypothesis:**
Human beings are happier, more cooperative, more productive and more likely to make positive changes in their behavior when people in positions of authority do things with them rather than to them or for them.

	Not at all	Rarely	Sometimes	Often	Always
I use high control and high support.	○	○	○	○	○
I maintain high expectations for appropriate behavior.	○	○	○	○	○
I address inappropriate behavior and do not ignore it.	○	○	○	○	○
I distinguish the discipline window box that I operate in.	○	○	○	○	○
I use the Social Discipline Window to reflect on my behavior and interactions with others.	○	○	○	○	○
The fundamental hypothesis is a foundation for "how we do things" at our school.	○	○	○	○	○

40. My colleagues understand the fundamental hypothesis.
- ○ Not at all
- ○ Rarely
- ○ Sometimes
- ○ Often
- ○ Always
- ○ Unsure

41. How many years have you been in the Pittsburgh Public Schools district?

42. How many years have you been in your **current** school?

43. Gender:
-- None --

44. Race/Ethnicity:
-- None --

45. As you think about the next school year, is there additional training or support you would like to receive on restorative practices from IIRP, from the district, or from your school administrators?
(If so, please indicate the additional training or support needed and from whom)

46. If you have any comments about your experience with or use of restorative practices over this past year, please feel free to include them below.

Year 2 Survey (June 2017)

1. The National Institute of Justice is funding your school district to implement and evaluate restorative practices. Your participation in this survey is important. Below are answers to some general questions you might have about the survey.

   HOW LONG WILL THIS TAKE?
   We estimate the survey will take about 30-35 minutes to complete.

   WHY SHOULD YOU PARTICIPATE IN THIS SURVEY?
   This survey will provide a clear understanding of how restorative practices have been implemented in your school during this past school year. Not only will your responses aid the current effort in Pittsburgh Public Schools by informing future needs and actions, but also they will help inform and shape the implementation of similar efforts around the country. ***You will also receive a $20 Amazon.com gift card as a token of appreciation for completing the survey.*** The gift card will be emailed to you within one week of completion.

   WHO IS BEING ASKED TO TAKE THIS SURVEY?
   All staff in the 22 schools that are implementing restorative practices are being asked to take this survey. Your participation is voluntary. However, we hope you will participate.

   WHAT IS THE PURPOSE OF THIS SURVEY?
   The purpose of this survey is to obtain information from school staff about their experiences with restorative practices.

   WHO IS CONDUCTING THIS SURVEY?
   The RAND Corporation is conducting this survey.

   WILL YOUR RESPONSES BE KEPT CONFIDENTIAL?
   Yes. Your responses will not be shared with anyone working in your school, school district, IIRP, or anyone else outside of the RAND research team. All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose. De-identified data will be archived at the National Archive of Criminal Justice Data in accordance with our data archiving plan.

   HOW WILL YOUR INFORMATION BE REPORTED?
   The information you provide will be combined with the information provided by others in statistical reports. No individually identifiable data will be included in the statistical reports.

   If you have any questions about the study, please contact the Principal Investigator, Catherine Augustine at 412-683-2300 x4998 or by email at cataug@rand.org.

   If you have any issues with the survey or technical questions, please contact Geoffrey Grimm at 703-413-1100 x5877 or by email at ggrimm@rand.org.

   If you have any questions or concerns about your rights as a research subject, please contact the Human Subjects Protection Committee at RAND, 1776 Main Street, PO Box 2138, Santa Monica, CA 90407, 310-393-0411 x6124, or by email to Sandra Berry at berry@rand.org.

Taking this survey:
To navigate throughout the survey, please use the "next" and "back" buttons on each page. If you wish to stop and return later to complete the survey use the "logout" button and your responses will be saved. To login again, please use the link you have received in your email along with the same login pin and password. You will be taken to the last page you completed on the survey. A red asterisk indicates questions that are used for routing purposes later in the survey. Your participation is voluntary and you are not required to answer any survey item; however, only surveys taken through to the completion page are eligible for the Amazon gift card.

WE APPRECIATE YOUR TIME AND INPUT! WE HOPE YOU WILL ANSWER EVERY QUESTION.

*

- ○ Yes, I wish to participate by completing this survey.
- ○ No, I do not wish to participate in this study.

2. Which of the following best describes your current, *primary* role at your school?*
   - ○ Classroom Teacher (ELA, mathematics, special education, alternative education, etc.)
   - ○ Administrative (principal, assistant principal, administrative assistant, etc.)
   - ○ Student Support (certified staff without a classroom, academic coach, special education support, coach, instructional strategist, etc.)
   - ○ Certified Non-Teaching Position (nurse, social worker, counselor, librarian)
   - ○ Not Certified Non-Teaching Position (student resource officer, custodian, paraprofessional, food service staff)

3. You indicated that you are a classroom teacher. Please select all the grades you currently work with below.
   (Check all that apply)
   - ☐ Pre-K
   - ☐ K
   - ☐ 1st Grade
   - ☐ 2nd Grade
   - ☐ 3rd Grade
   - ☐ 4th Grade
   - ☐ 5th Grade
   - ☐ 6th Grade
   - ☐ 7th Grade
   - ☐ 8th Grade
   - ☐ 9th Grade
   - ☐ 10th Grade
   - ☐ 11th Grade
   - ☐ 12th Grade

4. Please provide your total years as a teacher, irrespective of location:
   ☐

5. Thinking back over the entire school year, please indicate how often the following statements apply to your school.

	Never	Rarely	Sometimes	Often	Always
The environment is conducive to learning	○	○	○	○	○
Staff treat other staff with respect	○	○	○	○	○
Staff treat students with respect	○	○	○	○	○
Students treat staff with respect	○	○	○	○	○
Parents treat staff with respect	○	○	○	○	○
Students are threatened by other students in my school	○	○	○	○	○
Students are bullied by other students in my school	○	○	○	○	○
Students physically fight with one another in my school	○	○	○	○	○
Gang activity is a problem in my school	○	○	○	○	○

6. Please indicate to what extent you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I believe that restorative practices can help to improve student behavior.	○	○	○	○
The majority of staff in this school believes that restorative practices can help improve student behavior.	○	○	○	○
Learning restorative practices is worth my time.	○	○	○	○
Adopting restorative practices is worthwhile for my school.	○	○	○	○
I am confident that I know the purpose of restorative practices.	○	○	○	○
I am confident that I know the restorative practice methods.	○	○	○	○
I am confident in my ability to use restorative practices with the majority of students in my school.	○	○	○	○
Student behavior in my school has generally improved this year.	○	○	○	○
Student behavior in my school has improved **as a result of restorative practices.**	○	○	○	○
The school culture/climate has generally improved this year.	○	○	○	○
The school culture/climate has improved **as a result of restorative practices.**	○	○	○	○
The way that adults handle conflicts **with students** has improved as a result of restorative practices.	○	○	○	○
The way that students handle conflicts **with other students** has improved as a result of restorative practices.	○	○	○	○
The way that adults handle conflicts **with other adults** has improved as a result of restorative practices.	○	○	○	○

7. Has **restorative practices improved** your relationships **with other staff** in your building?
   - ○ Extremely improved
   - ○ Very improved
   - ○ Moderately improved
   - ○ Slightly improved
   - ○ Not at all improved

8. Has **restorative practices improved** your relationships **with students** in your building?
   - ○ Extremely improved
   - ○ Very improved
   - ○ Moderately improved
   - ○ Slightly improved
   - ○ Not at all improved

9. Please indicate the extent to which you feel you understand the elements of restorative practices.
   - ○ I do not understand restorative practices
   - ○ I know what some of the elements are
   - ○ I know the 11 elements we have learned
   - ○ I could explain the 11 elements to a peer
   - ○ I could train another person to use the 11 elements

10. Please indicate your agreement with the following statement: The same behaviors that received a suspension last year also receive a suspension in my school this year.
    - ○ Yes.
    - ○ No, behaviors that resulted in a suspension last year are not receiving suspensions this year
    - ○ No, behaviors that did not result in a suspension last year are receiving suspensions this year
    - ○ I did not work at this school last year

11. After a student is suspended in your school, is there a formal re-integration process for when that student returns to school?
    - ○ Yes and the formal process incorporates restorative practices (e.g., circle or conference)
    - ○ Yes and the formal process does not incorporate restorative practices
    - ○ No, there is no formal re-integration process at my school
    - ○ I am unsure if there is or is not a formal re-integration process at my school

12. Please indicate whether the following statements are true or not regarding restorative practices and your school's discipline policy.

	Yes	No
It is clear how restorative practices fits with my school's discipline policy.	○	○
Restorative practices are explicitly mentioned in my school's discipline policy.	○	○
Restorative practices conflict with my school's current discipline policy.	○	○

13. How useful do you think restorative practices are for the following:

	Not at all useful	Slightly useful	Moderately useful	Very useful	Extremely useful
Improving **school** culture	○	○	○	○	○
Improving **classroom** culture	○	○	○	○	○
Addressing student misbehavior	○	○	○	○	○

14. Did you attend any professional development provided by IIRP this past year? This consists of the training on formal restorative conferencing, the training on family engagement, or make-up training on intro to restorative practices and circles.*
    - ☐ I attended training on formal conferencing
    - ☐ I attended training on family engagement
    - ☐ I attended make-up training on intro to restorative practices
    - ☐ I attended make-up training on restorative practices circles
    - ☐ I did not attend any IIRP training

15. The materials I received from IIRP (books, posters, questions cards, etc.) were useful over this **past two years** in implementing restorative practices.
    - ○ Strongly Agree
    - ○ Agree
    - ○ Neither Agree nor Disagree
    - ○ Disagree
    - ○ Strongly Disagree
    - ○ I did not receive any IIRP materials

16. My school's IIRP coach was responsive when I requested information/assistance with restorative practices.
    - ○ Strongly Agree
    - ○ Agree
    - ○ Neither Agree nor Disagree
    - ○ Disagree
    - ○ Strongly Disagree
    - ○ I did not request information/assistance from my IIRP coach

17. My school's IIRP coach provided **me** with the following support outside of professional development training days (e.g., during coaching visits):
    (Check all that apply.)
    - ☐ Providing additional general information about restorative practices
    - ☐ Answering specific questions about implementing restorative practices
    - ☐ Modeling restorative practices
    - ☐ Providing feedback based on observing my use of restorative practices
    - ☐ I did not receive any support from our IIRP Coach outside of PD days
    - ☐ Other, please specify

18. The restorative practices materials provided by the PPS district (e.g., sharepoint site, circle question cards) were useful over this past year in implementing restorative practices.
    - ○ Strongly Agree
    - ○ Agree
    - ○ Neither Agree nor Disagree
    - ○ Disagree
    - ○ Strongly Disagree
    - ○ I did not receive/access any materials provided by PPS

You indicated that you attended at least one of the trainings on restorative practices provided by IIRP. Please respond to the following questions thinking back on the training(s) you attended.

19.

	Yes, for all the training(s) I attended	Yes, for some of the training(s) I attended	No
In the training(s) you attended, did the IIRP coach seem well prepared?	○	○	○
Did the IIRP coach set expectations for using new elements of restorative practices as a result of the training(s)?	○	○	○
Do you feel the training(s) you attended sufficiently prepared you to implement the restorative practice methods covered in the training(s)?	○	○	○

20. Are you a member of your school's Restorative Leadership Team?
- ○ Yes
- ○ No

21. Have you participated in a professional learning group (PLG) this year for restorative practices?*
- ○ Yes
- ○ No

22. Have you facilitated a formal restorative conference in the past year?*
(A formal restorative conference typically involves bringing in parents and peers of certain students to discuss a particular incident or problem)
- ○ Yes
- ○ No

23. How often did you meet with your PLG on restorative practices this past school year?
- ○ Once a semester or once a year
- ○ Two to three times a semester
- ○ Once a month
- ○ Twice a month
- ○ Three or more times a month

24. Please indicate to what extent the following statements are true for you over this past school year.

	Not at all true	Slightly true	True about half the time	Mostly true	Completely true
It was clear what was supposed to be covered in each PLG.	○	○	○	○	○
The PLG was able to cover the entire agenda each session.	○	○	○	○	○
The PLGs I participated in helped me to better **understand** restorative practices.	○	○	○	○	○
The PLGs I participated in helped me to better **implement** restorative practices	○	○	○	○	○
The PLGs strengthened my relationship with my colleagues.	○	○	○	○	○

You indicated that you have run a formal restorative conference. Please respond to the following questions about your experience with formal restorative conferencing.

25. Prior to running a formal restorative conference, did you receive support or training on how to facilitate one?
(check all that apply)
- ☐ Yes, I was trained by an IIRP coach
- ☐ Yes, I was trained by another staff member who attended IIRP training
- ☐ Yes, I was trained by another staff member who did NOT attend IIRP training
- ☐ Yes, I prepared through PLGs
- ☐ No, I did not receive support prior to the formal conference
- ☐ Other training or preparation, please specify

26. Did you feel you were sufficiently prepared to run the formal conference?
- ○ Yes, I felt sufficiently prepared
- ○ No, I did not feel sufficiently prepared

27. Did you use the script provided by IIRP during the conference?
- ○ Yes, I closely followed the script
- ○ Yes, I used the script more as a guide
- ○ No, I had the script but did not use it
- ○ I never received a script from IIRP for formal conferencing

28. How many formal restorative conferences have you run? The value must be between 1 and 100, inclusive.

29. Thinking about the most recent restorative conference you have run, how many **hours** did you spend preparing for the formal conference?

30. Thinking about the most recent restorative conference you have run, which of the following participants were present?
- ☐ Victim(s)
- ☐ Victim's peer
- ☐ Victim's parent
- ☐ Offender(s)
- ☐ Offender's peer
- ☐ Offender's parent

31. Thinking about the same, most recent formal conference, were the victim and offender able to come to an agreement for how to repair the harm that was done?
- ○ Yes
- ○ No

Feel free to expand on your selection here with any comments:

32. Please indicate your perception of how your school's administration has supported restorative practices over the past two years.
    - ○ My school's administration has supported the implementation of restorative practices over the past two years
    - ○ My school's administration supported implementation the first year, but less so the second year
    - ○ My school's administration supported implementation in the second year, but less so in the first year
    - ○ My school's administration has not supported the implementation of restorative practices

    Feel free to expand on your selection here with any comments:

33. My school's principal and school leadership team (administration) provided the following support outside of PLGs:
    (Check all that apply.)
    - ☐ Providing additional general information about restorative practices
    - ☐ Answering specific questions about implementing restorative practices
    - ☐ Modeling restorative practices
    - ☐ Providing feedback based on observing my use of restorative practices
    - ☐ Connecting me to other staff in my building who modeled or supported me in implementing RP
    - ☐ I did not receive any support from the leadership team outside of PLGs

    Feel free to expand on your selection here or add other supports provided:

34. Does your school have someone you would consider a champion of restorative practices who is not a part of the school adminsitration?*
    For example, a teacher or other staff member who supports implementation and provides help to other staff in the school around restorative practices.
    - ○ Yes
    - ○ No

35. You indicated that your school has a restorative practices champion. What kind of support have they provided around restorative practices?
    (Check all that apply.)
    - ☐ Providing additional general information about restorative practices
    - ☐ Answering specific questions about implementing restorative practices
    - ☐ Modeling restorative practices
    - ☐ Providing feedback based on observing my use of restorative practices
    - ☐ I did not receive any support from the restorative practices champion

    Feel free to expand on your selection here or add other supports provided:

36. Please check the factors that represent the most significant challenges you have faced to date in implementing restorative practices.
(If there is one or more significant factors for you that is not listed here, please select "Other" and specify)

- ☐ Time constraints
- ☐ Limited training (training not sufficient for implementation)
- ☐ Lack of support from school adminstration
- ☐ Student attitudes/lack of student buy-in
- ☐ Unclear discipline policy (unsure how RP fits into discipline policy)
- ☐ Lack of understanding of expectations
- ☐ Leadership/staff turnover
- ☐ Other, please specify

37. Please indicate your perceptions on how students feel about restorative practices.

	Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**
Students use affective statements when interacting with others.	○	○	○	○
Students display an understanding of the impact of their actions.	○	○	○	○
Students can express how they have been hurt by other students.	○	○	○	○
Students seem to understand the goal of restorative practices.	○	○	○	○
Students seem to respect restorative practices.	○	○	○	○

38. Please indicate the frequency of the following statements as they apply to **affective statements:**
Affective statements are personal expressions of how a positive or negative behavior has affected you.

	Not at all	**Rarely**	**Sometimes**	**Often**	**Always**
I use affective statements informally throughout the day.	○	○	○	○	○
I use "I" statements to express my feelings.	○	○	○	○	○
I actively encourage students to express their feelings.	○	○	○	○	○
When providing positive or negative feedback, I identify specific and concrete behaviors.	○	○	○	○	○
I deliver feedback in a personalized manner directly to the student who impacted others.	○	○	○	○	○
I distinguish the deed from the doer.	○	○	○	○	○
Affective statements are a part of "how we do things" at our school.	○	○	○	○	○

39. My colleagues use affective statements.

- ○ Not at all
- ○ Rarely
- ○ Sometimes
- ○ Often
- ○ Alway
- ○ Unsure

40. This question asks about **proactive circles.** For your reference, proactive circles are ritualistic relationship-building activities with clear expectations, done in a circle configuration. Topics include goal setting, academic content, classroom norms, behavioral expectations, or other "fun" topics.

    How many proactive circles have you run **per week**, on average, over the entire school year?*

41. My colleagues use proactive circles.
    - Not at all
    - Rarely
    - Sometimes
    - Often
    - Always
    - Unsure

42. Proactive circles are a part of "how we do things" at our school.
    - Not at all
    - Rarely
    - Sometimes
    - Often
    - Always

43. Please indicate the frequency of the following statements as they apply to **proactive circles:**

	Not at all	**Rarely**	**Sometimes**	**Often**	**Always**
I use circles to provide opportunities for students to share feelings, ideas, and experiences.					
In the circles, only one person speaks at a time.					
In the circles, participants are focused on an explicit topic.					
I model desired behaviors and responses for the participants within the circle.					
I set a positive tone when I begin a circle.					
I am ready with a response to participants who ask to "pass."					
I sit *in* the circle.					
I pick topics that encourage risk taking.					

44. Have you done any content/instructional circles with students?*

    -- Please Select --

44. Have you done any content/instructional circles with students?*

-- Please Select --

45. For each bi-monthly period below, please indicate the general frequency that you held proactive circles.

	Never	Rarely	Sometimes	Often	Always
August/September (2016)	○	○	○	○	○
October/November (2016)	○	○	○	○	○
December/January (2016/17)	○	○	○	○	○
February/March (2017)	○	○	○	○	○
April/May (2017)	○	○	○	○	○
Currently	○	○	○	○	○

46. You indicated you have done content/instructional circles with students. How many content circles, on average, **per week** have you done over the past school year?

47. The next question refers to **impromptu conferences**. For your reference, small impromptu conferences/conversations are questioning exercises designed to resolve lower-level incidents **with a few students** before they escalate. These are held spontaneously or with little planning and often are structured around the restorative questions, printed on the restorative questions card.

How many impromptu conferences have you run **per week**, on average, over the entire school year?*

48. My colleagues use small impromptu conferences.

- ○ Not at all
- ○ Rarely
- ○ Sometimes
- ○ Often
- ○ Always
- ○ Unsure

49. Small impromptu conferences are a part of "how we do things" at our school.

- ○ Not at all
- ○ Rarely
- ○ Sometimes
- ○ Often
- ○ Always

50. Please indicate the frequency of the following statements as they apply to **impromptu conferences:**

	Not				
to the restorative questions.					
I provide opportunities for those who were harmed to be heard and to have a say in what needs to happen to make things right.	○	○	○	○	○
When facilitating a small impromptu conference, I encourage students to do most of the talking.	○	○	○	○	○
I distinguish the deed from the doer.	○	○	○	○	○
I ask the wrongdoer to identify who has been harmed and what harm was done.	○	○	○	○	○
I ask students to take specific actions to repair the harm.	○	○	○	○	○
I use a respectful tone and avoid lecturing.	○	○	○	○	○

51. This question asks about **responsive circles.** For your reference, responsive circles are circles that occur with a group of students (which would be an entire class) after a moderately serious incident causes harm.

    How many responsive circles have you run **per week**, on average, over the entire school year?*

    [ ]

52. My colleagues use responsive circles.
    - ○ Not at all
    - ○ Rarely
    - ○ Sometimes
    - ○ Often
    - ○ Always
    - ○ Unsure

53. Responsive circles are a part of "how we do things" at our school.
    - ○ Not at all
    - ○ Rarely
    - ○ Sometimes
    - ○ Often
    - ○ Always

54. Please indicate the frequency of the following statements as they apply to **responsive circles**:

54. Please indicate the frequency of the following statements as they apply to **responsive circles**:

	Not at all	Rarely	Sometimes	Often	Always
I use circles as a response to an incident/problem.	○	○	○	○	○
Students feel safe to take risks.	○	○	○	○	○
I encourage students in the circle to confront each other when necessary.	○	○	○	○	○
I encourage students to take responsibility for their own behavior.	○	○	○	○	○
Responsive circles are a part of how we do things at our school.	○	○	○	○	○

55. Please indicate the frequency of the following statements as they apply to your **staff community:**

	Not at all	Rarely	Sometimes	Often	Always
I use affective statements with other staff members.	○	○	○	○	○
I use restorative questions to resolve staff conflicts and repair harm done to staff relationships.	○	○	○	○	○
We use proactive circles to build a healthy staff community.	○	○	○	○	○
We use responsive circles to deal with conflicts that arise among staff members.	○	○	○	○	○
We use fair process in situations where participatory decision-making is appropriate.	○	○	○	○	○
The school administration models restorative practices.	○	○	○	○	○
As a staff we meet the criteria of a high quality restorative staff community.	○	○	○	○	○

56. Please indicate the frequency of the following statements as they apply to a **restorative approach with families.**

	Not at all	Rarely	Sometimes	Often	Always
I use affective statements with students' family members.	○	○	○	○	○
I use responsive circles to resolve problems between students' family members and the school.	○	○	○	○	○
I use fair process where participatory decision making is appropriate.	○	○	○	○	○
I routinely communicate positive student behavior and academic achievement to family members.	○	○	○	○	○
A restorative approach with families is part of "how we do things" at our school.	○	○	○	○	○

57. My colleagues use a restorative approach with families.

○ Not at all
○ Rarely
○ Sometimes
○ Often
○ Always
○ Unsure

58. How many years have you been in the Pittsburgh Public Schools district?

59. How many years have you been in your **current** school?

60. Gender:

-- None --

61. Race/Ethnicity:

-- None --

62. As you think about the next school year, is there additional training or support you would like to receive on restorative practices from IIRP, from the district, or from your school administrators?

(If so, please indicate the additional training or support needed and from whom)

63. If you have any comments about your experience with or use of restorative practices over this past year, please feel free to include them below.

Survey Cleaning

The majority of survey items were Likert-scale responses and were provided on an integer scale. These items required no transformations prior to analysis. Survey items asking about the frequency with which staff used proactive circles, impromptu conferences, and responsive circles all required numeric entries from the respondent. There were a few cases in which unreasonably large numbers were entered (e.g., more than 1,000 per week). Based on observation data, interview data, and consultation with IIRP coaches and subject-matter experts, we determined that a reasonable cutoff for valid answers was 25 circles per week of any one type. Thus, for each of these open-response items on circle/conference frequency, any response over 25 per week was dropped. This resulted in 35 responses dropped from the Year 1 survey and 13 dropped from the Year 2 survey.

We then merged survey data with secondary administrative data from the district (including gender, race, position, years in district) and school aggregated statistics (such as percentage of economically disadvantaged students, percentage of English language learners, percentage of special education students, and school and restorative practices training attendance data). We used this merged data set as the analytic file for survey weighting and analysis.

We collapsed staff positions into three major groups based on the staff member's responsibility for student learning in the school. These classifications were iterated on and produced with the help of district personnel:

1. Teacher: teacher, preschool teacher, full time substitute teacher, hourly adjunct teacher, salaried adjunct teacher
2. Direct student staff: assistant teacher, classroom assistant, acting assistant principal, acting principal, assistant principal, counselor, early literacy specialist, educational assistant, librarian, personal care aid, principal, social worker, supervisory aide
3. Indirect student staff: assistant custodian, custodian, food service worker, food service manager, school clerk, security, sign language interpreter

Survey Measures

A set of items administered across both surveys asked respondents about their belief in, confidence in, and perceived impact of the restorative practices methods. Some of these items were thought to be related, and in an effort to identify informative measures and composites from the survey to inform implementation, we performed exploratory factor analysis (EFA) on this set of items. Because the data came from multiple school sites, we calculated the intra-class correlation for each item. These correlations ranged from 0 to 0.22, indicating significant between-school variation for some items. As a result, all items were first demeaned at the school level to isolate within-school variance and control the between-group variation prior to EFA.

We ran an EFA model testing each of one-, two-, three-, four-, five-, and six-factor fits. The four-factor fit provided the best conceptual fit with the data and improved fit statistics compared with the other fits. Results from the selected four-factor fit are presented in Table A.1.

Distributions for the resulting measures are presented in Figures A.1–A.4.

Table A.1
Buy-In Factor Loadings

Item	Factor 1: School Climate	Factor 2: Buy-In	Factor 3: School Conflict	Factor 4: Confidence
I believe that restorative practices can help to improve student behavior	0.06	**0.83**	–0.01	–0.04
The majority of staff in this school believes that restorative practices can help improve student behavior	0.19	0.35	0.15	0.06
Learning restorative practices is worth my time	–0.04	**0.90**	0.04	0.01
Adopting restorative practices is worthwhile for my school	0.03	**0.91**	–0.03	0.02
I am confident that I know the purpose of restorative practices	–0.10	0.25	0.00	**0.60**
I am confident that I know the restorative practices methods	0.03	–0.05	–0.05	**0.94**
I am confident in my ability to use restorative practices with the majority of students in my school	0.03	0.00	0.11	**0.76**
Student behavior in my school has generally improved this year	**0.79**	0.04	0.04	0.03
Student behavior in my school has improved as a result of restorative practices	**0.65**	0.10	0.21	0.01
The school culture/climate has generally improved this year	**1.00**	–0.04	–0.08	0.00
The school culture/climate has improved as a result of restorative practices	**0.74**	0.08	0.14	0.03
The way that students handle conflicts with adults has improved as a result of restorative practices	0.07	0.00	**0.82**	–0.02
The way that students handle conflicts with other students has improved as a result of restorative practices	–0.02	0.02	**0.87**	0.01
The way that adults handle conflicts with other adults has improved as a result of restorative practices	0.07	–0.04	**0.61**	0.09
Sum of squares loading	3.01	2.70	2.22	1.94

NOTES: Root mean square error of approximation = 0.006; Tucker Lewis Index of factoring reliability = 0.912; chi-squared = 5,970.61. Bold indicates the highest loading for that item across all factors.

Figure A.1
Distribution for Buy-In

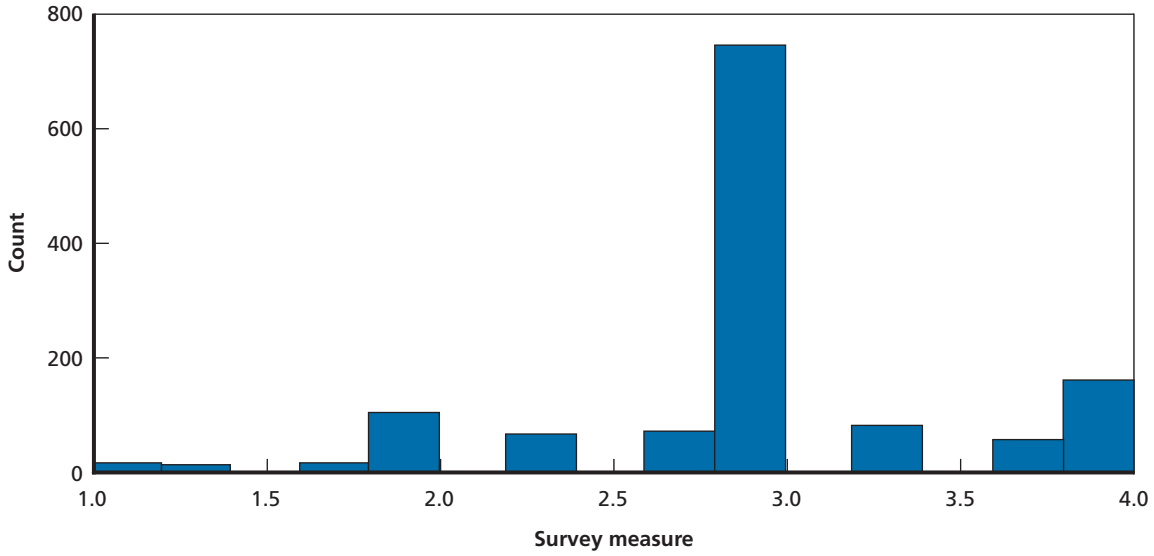


Figure A.2
Distribution for Confidence

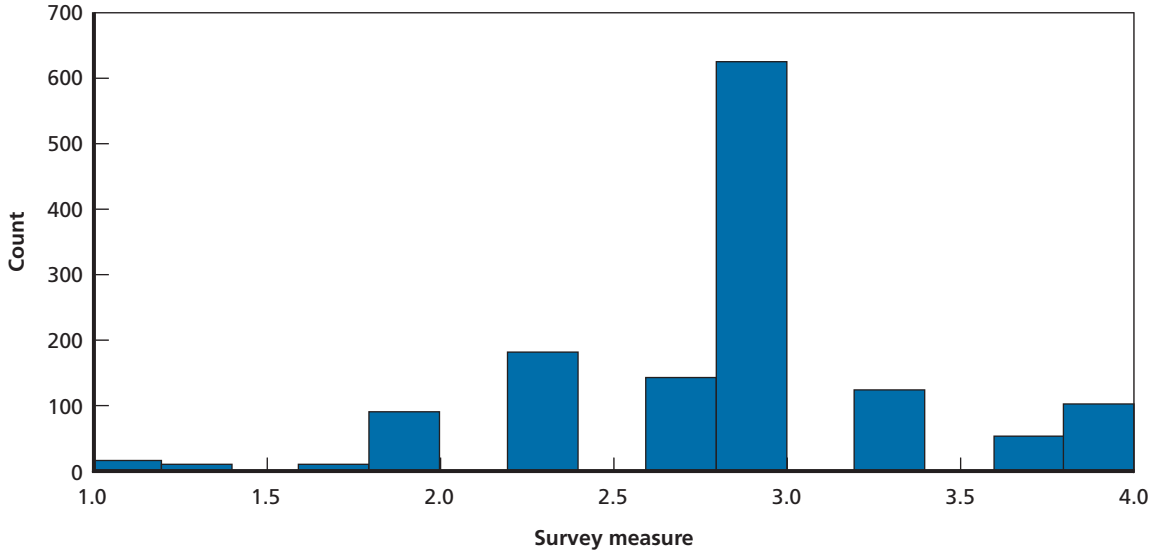


Figure A.3
Distribution for Perceived Impact on Climate

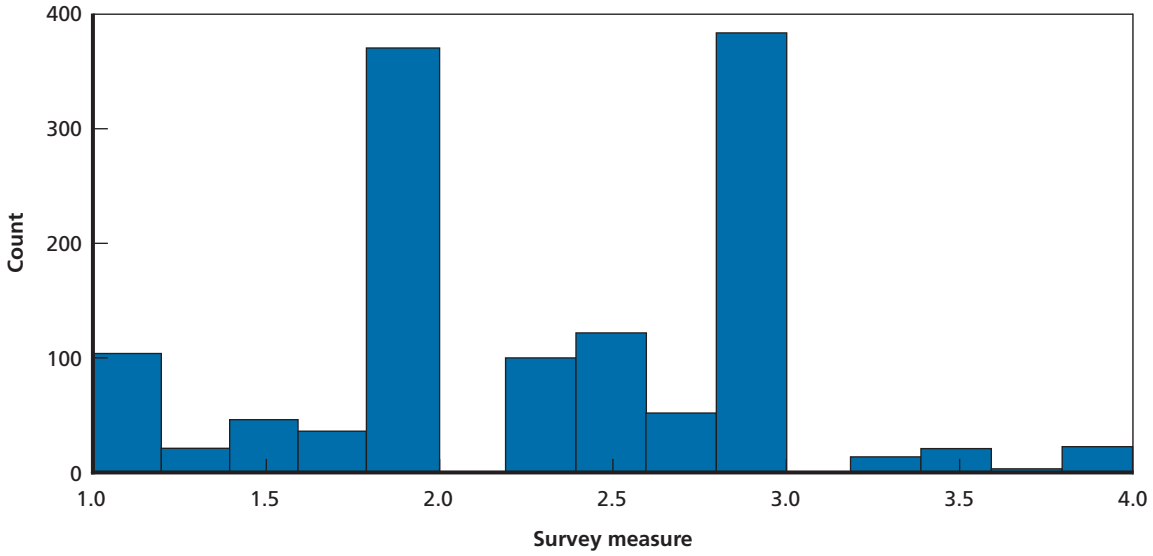
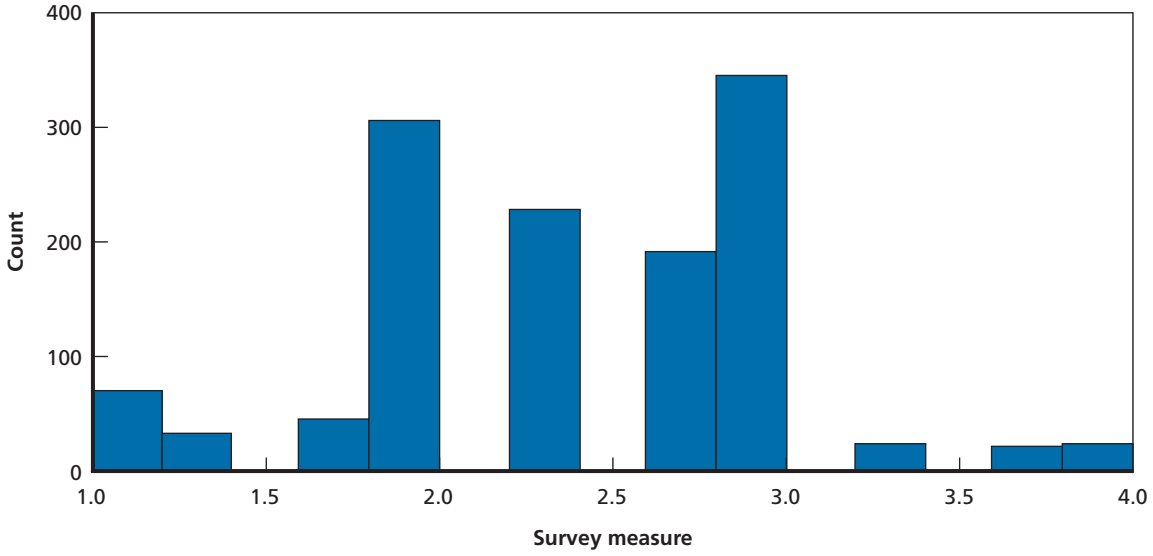


Figure A.4
Distribution for Perceived Impact on Handling Conflict



The second survey composite comprised a set of 29 items asking about the use of restorative practices elements and restorative practices characteristics. The goal with this was not to identify any latent construct around attitudes, but rather to select items that pertained to use of restorative practices to generate a simple index of use to examine variation in use of restorative practices. Thus, we identified from a larger set of items focused on restorative practices elements a subset of 29 items that pertained directly to use. All of the items were on a five-point Likert scale of frequency—not at all, rarely, sometimes, often, always. The 29 items selected for the use index are as follows:

- Affective statements
  - I use affective statements informally throughout the day.
  - I use "I" statements to express my feelings.
  - I actively encourage students to express their feelings.
  - I deliver feedback in a personalized manner directly to the student who impacted others.
  - I distinguish the deed from the doer.
  - When providing positive or negative feedback, I identify specific and concrete behaviors.
- Proactive circles
  - I use circles to provide opportunities for students to share feelings, ideas, and experiences.
  - I model desired behaviors and responses for the participants within a circle.
  - I set a positive tone when I begin a circle.
  - I am ready with a response to participants who ask to pass.
  - I sit in the circle.
  - I pick topics that encourage risk taking.
- Impromptu conferences and restorative questions
  - When addressing misbehavior between students, I structure the conversation using restorative questions.
  - I facilitate a small impromptu conference when a lower level incident occurs.
  - When facilitating a small impromptu conference, I encourage students to do most of the thinking.
  - I ask students to take specific actions to repair the harm.
  - I use a respectful tone and avoid lecturing.
  - I engage those who were harmed when I deal with an incident.
  - I ask the wrongdoer to identify who has been harmed and what harm was done.
  - I ask the wrongdoer what needs to be done to make things right.
- Responsive circles
  - I use circles as a response to an incident/problem.
  - I encourage students in the circle to confront each other when necessary.
  - I encourage students to take responsibility for their own behavior.
- Restorative staff community
  - I use affective statements with other staff members.
  - I use restorative questions to resolve staff conflicts and repair harm done to staff relationships.
- Restorative approach with families
  - I use affective statements with students' family members.
  - I use responsive circles to resolve problems between students' family members and the school.
  - I use fair process where participatory decision-making is appropriate.
  - I routinely communicate positive student behavior and academic achievement to family members.

The survey also included a number of questions asking respondents to report on the frequency of use of certain restorative practices. These were originally intended to be treated as

continuous outcomes. However, after examination of distributional properties, it became evident that the information/variation existed mostly between respondents who reported never doing these practices and those who reported doing them at all. Also, because the survey was administered at the end of the year and these items asked respondents to think back across the entire school year, we were not confident that the specific numbers provided by respondents were accurate. For analysis, these items were transformed into a dichotomous measure for whether the respondent reported never having engaged in the restorative practice (0) or reported engaging at any level (1). The results are presented in Figures A.5–A.8.

Figure A.5
Distribution for Proactive Circles Frequency

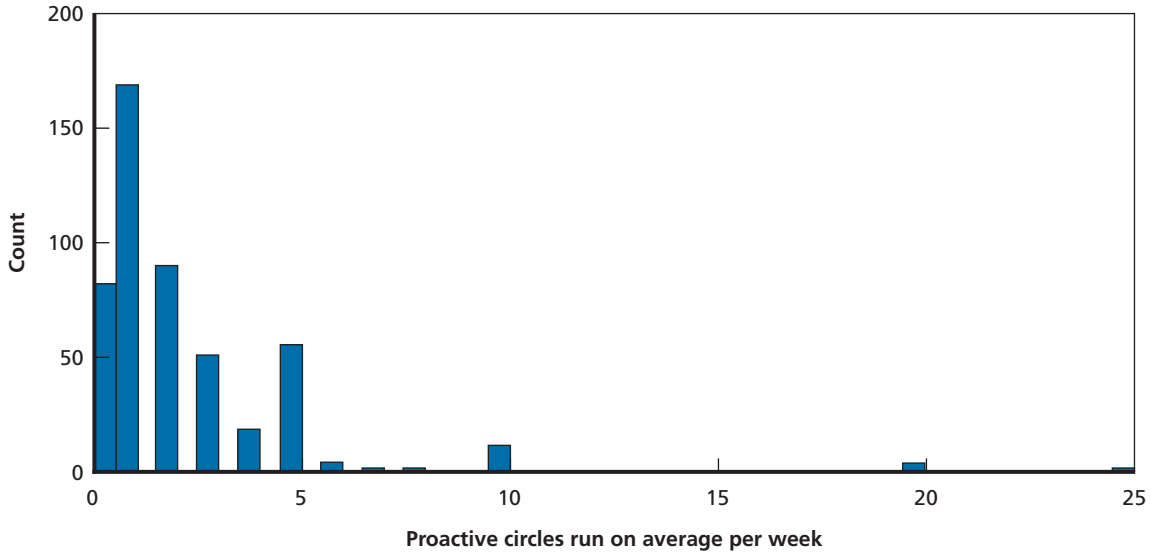


Figure A.6
Distribution for Impromptu Conferences Frequency

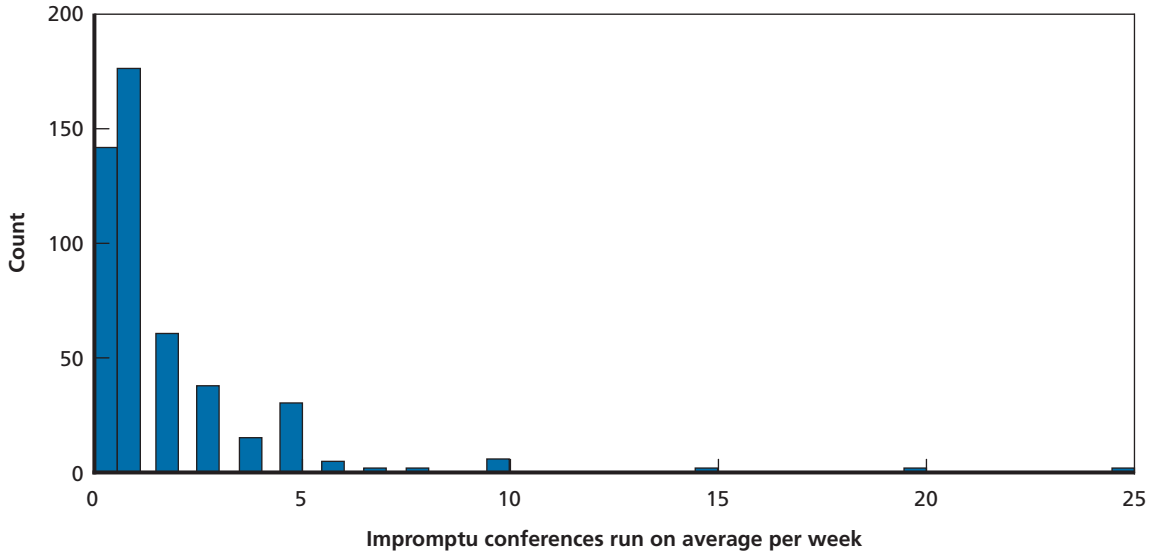


Figure A.7
Distribution for Restorative Conferences Frequency

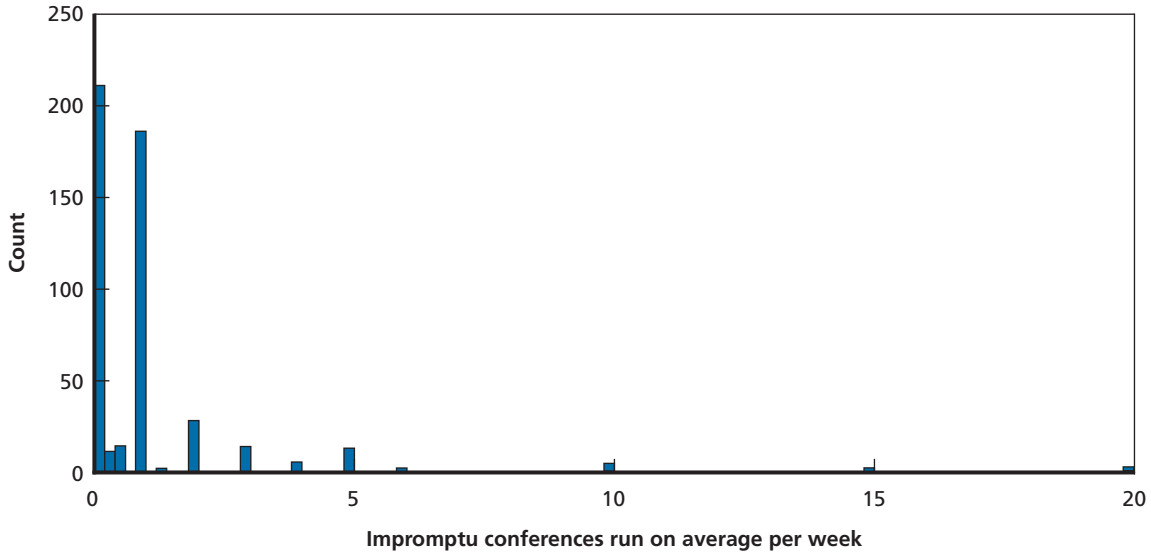
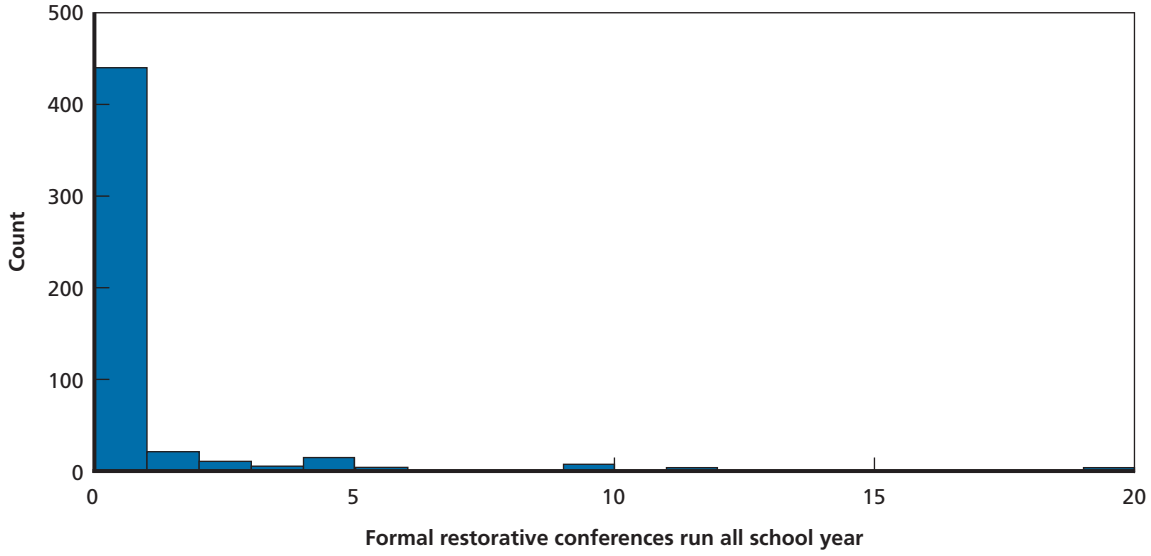


Figure A.8
Distribution for Formal Restorative Conferences Frequency



As noted in the main report, variation at the school level was observed for both buy-in and use. Tables A.2 and A.3 present variations of these measures by school in terms of the proportion of staff who fall one standard deviation above (high) or below (low) the mean for that measure.

Table A.2
Variation in Buy-In by School

School	Low	Average	High
Overall	14.4%	66.5%	19.2%
School terminal grade 5 (N = 12)	13.4%	64.7%	22.0%
School terminal grade 8 (N = 7)	15.4%	69.7%	14.9%
School terminal grade 12 (N = 3)	14.7%	64.9%	20.3%

NOTES: The "Low" and "High" columns represent the proportion of staff who are one standard deviation or more below and above the mean; the average column represents the proportion of staff who fall within one standard deviation of the mean.

Table A.3
Variation in Use by School

School	Low	Average	High
Overall	17.5%	67.9%	14.7%
School terminal grade 5 (N = 12)	13.6%	68.3%	18.1%
School terminal grade 8 (N = 7)	20.5%	67.3%	12.2%
School terminal grade 12 (N = 3)	22.6%	65.3%	12.1%

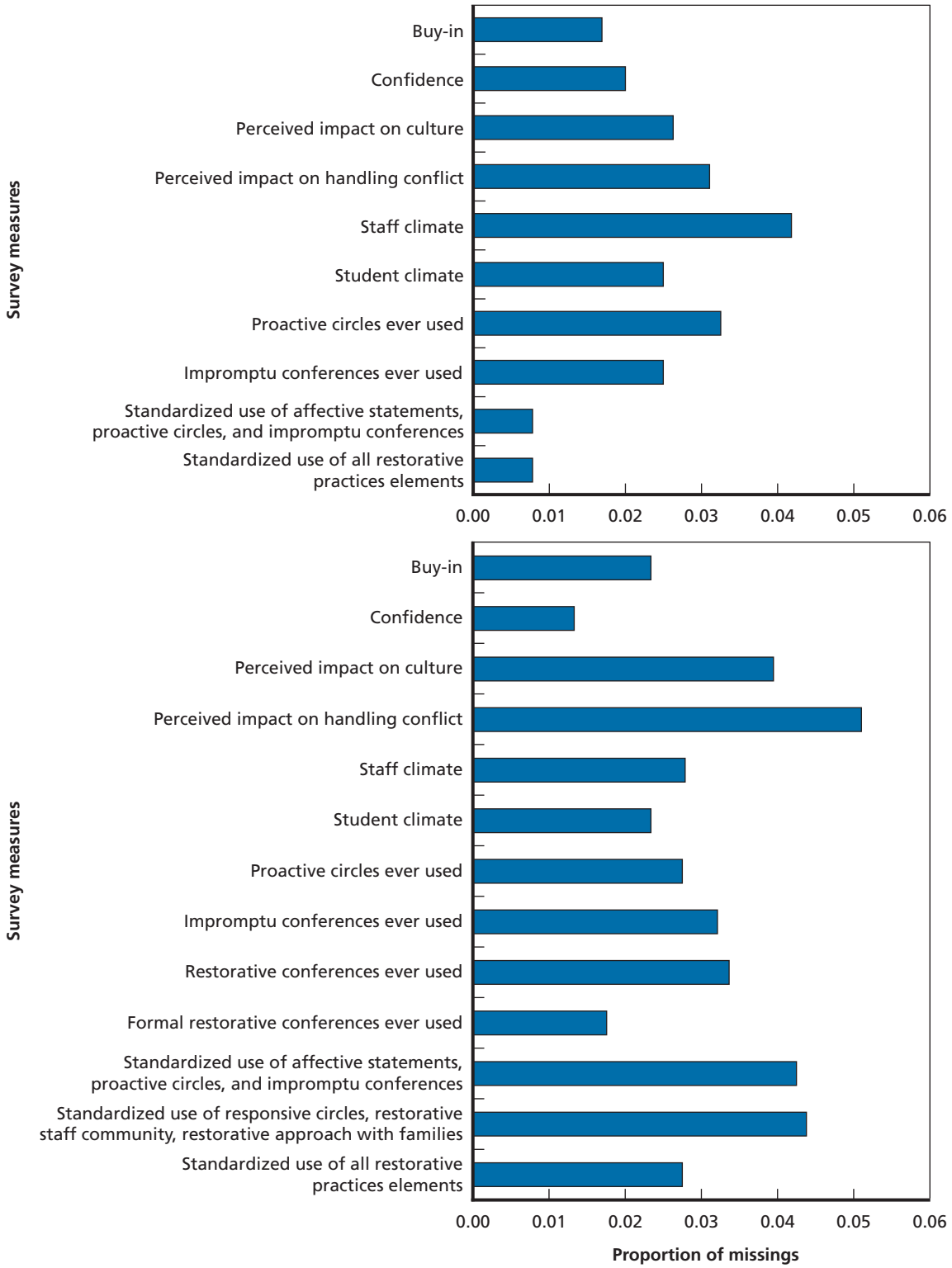
NOTES: The "Low" and "High" columns represent the proportion of staff who are one standard deviation or more below and above the mean; the average column represents the proportion of staff who fall within one standard deviation of the mean.

Survey Weights

Survey responses were weighted to adjust for item nonresponse bias and obtain survey estimates for the entire PERC population. Given the multiple outcomes, one potential concern was whether a set of weights might be required for each outcome. This is only an issue if there are differential and high rates of missingness across the various outcomes. Figure A.9 shows rates of missingness across the survey outcomes for which there was any missingness. All outcomes have rates of missingness at about 5 percent or lower. Due to these low rates, calculating weights for each outcome individually would yield largely similar (in some cases identical) weights for respondents and a single set of weights for survey respondents is sufficient.

We calculated a single set of weights for each survey such that the survey respondents, after weighting, looked like the PERC staff population in all 22 schools. We calculated survey weights as the inverse probability of responding to the survey conditional on a set of demographic and experiential characteristics. Basic demographics, such as gender, race, position, and years in the district, were included along with school and whether the staff member had attended any of the IIRP trainings. School was included to ensure that the weighted sample of staff reflected the proportion of staff that work in each of the 22 schools. We added the indicator for attending training because we thought it likely that staff who had attended any of the trainings would be more likely to respond to the survey than those who had less direct contact with IIRP or the implementation in general. We used propensity score analysis to calculate the survey weights (Rosenbaum and Rubin, 1983; McCaffrey, Ridgeway, and Morral, 2004).

Figure A.9
Rates of Missingness Across Survey Outcomes for Year 1 and Year 2



Tables A.4 and A.5 present the balance statistics for the weighted survey sample compared with all PERC staff.

Table A.4
Year 1 Balance Statistics

Variable	Unweighted Respondents	Weighted Respondents	All PERC Staff	Standardized Difference
Female	0.741	0.718	0.701	–0.036
Male	0.259	0.282	0.285	0.007
White	0.823	0.763	0.725	–0.085
Black	0.157	0.211	0.231	0.049
Other race	0.021	0.024	0.027	0.023
Years in district	11.801	11.716	11.736	0.002
School*	Omitted	Omitted	Omitted	0.051
Classroom teacher	0.742	0.667	0.614	–0.109
Direct student staff	0.205	0.227	0.228	0.001
Indirect student staff	0.053	0.099	0.137	0.113
Attended IIRP training	0.908	0.857	0.819	–0.098

NOTES: *Covariates for the 22 schools have been omitted for privacy reasons. The largest standardized difference across all schools is presented in the table.

Table A.5
Year 2 Balance Statistics

Variable	Unweighted Respondents	Weighted Respondents	All PERC Staff	Standardized Difference
Female	0.767	0.753	0.724	–0.063
Male	0.233	0.233	0.262	0.066
White	0.821	0.756	0.724	–0.073
Black	0.150	0.199	0.233	0.080
Other race	0.029	0.031	0.031	0.001
Years in district	11.236	11.681	11.817	0.016
School*	Omitted	Omitted	Omitted	–0.037
Classroom teacher	0.738	0.649	0.606	–0.088
Direct student staff	0.202	0.217	0.210	–0.019
Indirect student staff	0.060	0.120	0.166	0.123
Attended IIRP training	0.881	0.831	0.799	–0.079

NOTES: *Covariates for the 22 schools have been omitted for privacy reasons. The largest standardized difference across all schools is presented in the table.

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