

# Health, Well-Being, and Education in an Urban School District

Baltimore City Public Schools Prior to the  
Implementation of the 21st Century  
Buildings Program

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## Preface

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Over half of public school buildings across the country fail to provide adequate conditions for students to learn and school staff to work. Prior research has established an evidence base of associations between high-quality school building facilities and student, staff, school, and community health and education outcomes. Recognizing this research and the need for facility improvements, Maryland has approved the 21st Century Buildings Program, which is paid for by Baltimore City Public Schools (City Schools), the State of Maryland, and the City of Baltimore. The program will invest close to \$1 billion to renovate or replace over two dozen school buildings. City Schools, with support from the Fund for Educational Excellence, selected the RAND Corporation to study the impact of new school buildings on student, staff, school, and community outcomes.

This report summarizes data collected in the first phase of the study. Efforts include data collection using a number of instruments during the 2015–2016 school year, prior to the renovations and rebuilding effort. We describe the schools that are part of this data collection and the instruments that were fielded, summarize a selection of the data collected, and present correlational analyses of the relationship between select student, teacher, school and community outcomes. This research was funded by the Robert Wood Johnson Foundation, which is committed to supporting the health and wellbeing of children and their communities, and promoting a Culture of Health. The work was conducted within RAND Health and RAND Education.

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## Summary

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This report presents findings from the initial phase of a larger study to examine whether and how the rebuilding and renovating of school buildings in Baltimore City Public Schools will affect students, school staff, school conditions, and the surrounding community. The goal of this first phase was to collect data prior to the start of the Baltimore 21st Century Building Program and conduct initial exploratory analyses of data from treatment schools (i.e., schools slated for renovation or rebuilding) and comparison schools (i.e., schools with similar student and school characteristics but not slated for renovation or rebuilding).

The RAND Corporation research team collected data on school conditions and neighborhood characteristics through site visits, student and school staff health and well-being through surveys, and administrative data on student and staff characteristics and education outcomes, which provide a detailed snapshot of the district conditions before the renovations took place. In addition to describing this baseline data, this report summarizes findings on three sets of exploratory analyses, identified together by our team and the Robert Wood Johnson Foundation, which examine associations between factors that could be influenced by the school building conditions: (1) the relationship between students' perception of school climate, student health and well-being, and student education outcomes; (2) the relationship between teachers' perceptions of school climate, teacher health and well-being, and their students' education outcomes; and (3) the relationship between neighborhood characteristics and students' perceptions of school climate.

We found that students' and teachers' perception of school climate was correlated with measures of mental health in both populations, and that students' physical and mental health are moderately correlated with education outcomes, in particular with thinking about dropping out of school. We found no statistically significant correlations between teacher physical and mental health and student education outcomes, nor were we able to identify statistically significant relationships between our measures of neighborhood quality and students' assessment of the school climate.

## Acknowledgments

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## Abbreviations

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EAS	Educational Adequacy Score
ELA	English language arts
FCI	Facility Condition Index
FRL	free or reduced-price lunch
ICC	intra-class correlations
RWJF	Robert Wood Johnson Foundation
PROMIS	Patient-Reported Outcomes Measurement Information System
SD	standard deviation
STEM	science, technology, engineering, and mathematics

# 1. Introduction

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Schools can act as community anchors, and therefore deteriorating facilities can have long-term, lasting negative effects on student, staff, and community well-being. Recognizing this, in 2013, the Maryland legislature passed, and Governor Martin O’Malley signed into law, House Bill 860. This bill established funding and oversight for the Baltimore City Public Schools (City Schools) 21st Century Buildings Program. This program will invest approximately \$1 billion in new and modernized school buildings, paid for by City Schools, the State of Maryland, and the City of Baltimore. From 2016 to 2019, City Schools is rebuilding or renovating 11 primary and secondary schools (an additional 13 to 17 schools are slated for later renovation).<sup>1</sup> The vision of the overall initiative is to

build future-focused, adaptable, sustainable and high-quality schools that inspire learning and support the educational success of City Schools students, and design schools that allow for recreational opportunities for the community, combined with other cooperative uses and school partnership programs (21st Century Schools Baltimore, undated-a).

There is research evidence in both the education and public health literature that school facility features, such as instructional and recreational space, lighting, temperature control, and noise, are associated with both short- and long-term outcomes for students and school staff (for a review of the literature, see Eitland et al., 2016). However, most prior research is cross-sectional in nature, and few studies have examined longitudinally the extent to which school facility investments improve student and teacher health and well-being, student education outcomes, and the surrounding community.<sup>2</sup> The announcement of the Baltimore 21st Century School Buildings Program provided a unique opportunity to collect baseline data for later study to measure the impact of improvements in school buildings on student, staff, and community health and well-being. The detailed data collection at “baseline,” prior to implementation of the program, will allow us to eventually explore changes in the relationship between school building conditions and education and health outcomes for students and school staff in Baltimore.

## Study Objectives

With the support of the Robert Wood Johnson Foundation (RWJF), in spring 2016, the RAND Corporation team embarked on the collection of pre-renovation data about the conditions

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<sup>1</sup> The full list of schools can be viewed at 21st Century Schools Baltimore, undated-b.

<sup>2</sup> We note that throughout this report “education outcomes” refers generally to education or academic measures of learning and performance, as it is commonly used in education research literature. Use of “outcomes” does not suggest causal inference but is rather a common term that we have adopted for the report.

within and surrounding a purposefully selected set of schools in the district—those that were about to undergo reconstruction, and a matched set of schools within the district that were not slated for immediate reconstruction. The data collection covered a large range of topics. Unique to this study, we included not only primary data collection through surveys and observations but also administrative data from the district on students and school staff (e.g., individual student test scores, student and teacher demographics, and student-teacher links through courses). This baseline data collection effort gave us the opportunity to describe characteristics prior to the 21st Century Buildings Program. It also allowed us to explore baseline associations between school climate, health, well-being, and neighborhood quality.

While the ultimate goal of this research is to examine to what extent improvements to the physical environment of schools influence health and academic outcomes of students, health and job satisfaction of school faculty and staff, and neighborhood conditions, this report focuses on the initial phase of the project, including baseline data collection. The data collection prior to the renovation effort allows us to descriptively explore three research questions that were jointly identified by RWJF and our team.<sup>3</sup> The following questions are the focus of this report:

1. What is the relationship between students' perception of school climate, student health and well-being, and student education outcomes?
2. What is the relationship between school staff perceptions of school climate, staff health and well-being, and their students' education outcomes?
3. What is the relationship between neighborhood characteristics and school climate?

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<sup>3</sup> While there are a large number of research questions that can be examined with the data collected prior to the renovations, this report focuses on three important questions for the sake of tractability. Once the second round of data collection is completed (after the renovations) and longitudinal data become available, we will have the ability to examine additional correlations and make causal inferences about the impact of the new school buildings on outcomes of interest.

## 2. Background and Conceptual Framework

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The 21st Century Building Program aims to build schools that support teaching and learning to prepare students for college and career success and also provide resource hubs for the surrounding community. The new school buildings will feature flexible, adaptable learning spaces designed for collaboration and technology-equipped classrooms. All learning spaces will accommodate a variety of instructional strategies and student-grouping approaches, allowing students to work independently or collaboratively, and to give or receive instruction. Common areas will be designed to be welcoming, with high-quality, modern shared-learning spaces, such as art rooms, technology labs, and science labs. Outdoors, there will be new sports facilities, courtyards, and open play areas; outdoor classrooms; and landscaping that is aesthetically pleasing, has sufficient shade, and has the lighting and fencing to ensure security. Vegetable gardens, as well as storm water and bio-retention ponds, are planned to be integrated where possible. The planned buildings “[are] filled with natural light and clean air, are temperature controlled, have good sound quality, and offer ample outdoor space, all while conserving resources and energy” (City Schools, undated-a). All new school buildings will be certified by the U.S. Green Building Council through its Leadership in Energy and Environmental Design Silver standard (U.S. Green Building Council, undated). Finally, all new and renovated school buildings should have community and shared spaces apportioned according to the programs and services identified for each school. These include community spaces that can be shared with other organizations during nonschool hours (e.g., a gymnasium to be shared with city recreation centers) or shared spaces designated to specific community partners (e.g., freezer storage to be shared with a nearby food bank).

By investing in new and improved school facilities, Baltimore is addressing a critical need that exists nationwide. A 2014 report on the condition of school buildings around the United States found that 53 percent of school buildings are in fair or poor condition and should be renovated or replaced to meet students’ instructional needs (Alexander and Lewis, 2014). School building conditions in Baltimore mirror those in other urban school districts, where building conditions are more likely to be in fair or poor condition than suburban or rural locations.

There is a wealth of interdisciplinary evidence to support the benefits of these facility investments. First, the condition of *school building facilities* is associated with *school climate*, which is defined as the “shared beliefs, values, and attitudes that shape interactions between students and adults and set the parameters of acceptable behavior and norms for the school” (Wang and Degol, 2016). More specifically, research has measured school climate as a multidimensional construct that can include academic climate, safety, and community relationships (Wang and Degol, 2016; Thapa et al., 2013). Uline and Tschannen-Moran (2008) have shown that the quality of school building facilities is associated with school climate, as

measured by an index that included academic expectations (or academic press), community engagement, teacher professionalism, and collegial leadership.<sup>1</sup> In other work, a number of studies have found that the presence of unsupervised areas in the school building, as well as the layout of the classroom, are associated with students' assessment of the safety dimension of school climate (Astor et al., 2010; Conroy and Fox, 1994; Van Acker, Grant, and Henry, 1996).

There is also a solid foundation of research that finds *school organizational contexts* and *school climate* are critically important for *student health and education outcomes*. Turning first to the health outcomes, a number of studies have found that higher levels of school connectedness (i.e., the belief held by students that adults and peers in the school care about their learning as well as about them as individuals [Centers for Disease Control and Prevention, 2015a]) are associated with lower risks of anxiety and smoking/drug use (Bond et al., 2007; LaRusso and Selman, 2011). Higher levels of safety and school connectedness are also associated with improved social and emotional skills (Durlak et al., 2011) and lower levels of psychological distress, such as loneliness and depression, among students (Graham et al., 2006; Ozer and Weinstein, 2004).

In addition, Kraft, Marinell, and Shen-Wei (2016) found that higher quality school contexts, as measured by four indexes (leadership, academic expectations, teacher collaboration and safety), are associated with student achievement gains within those schools. Relatedly, Ronfeldt et al. (2015) highlight the relationship between the quality of collaboration among instructional teams of teachers and higher student achievement.

A strong *school climate* is also critical for *teacher well-being, effectiveness, and job satisfaction*. Teacher burnout and stress are influenced by the school climate, particularly community relations and leadership supports (Grayson and Alvarez, 2008; Collie, Shapka, and Perry, 2012). Teachers in more supportive school environments report higher levels of job satisfaction and are more likely to remain in teaching (Grayson and Alvarez, 2008; Skaalvik and Skaalvik, 2016). This is important because there is an established literature in the field of education showing that teachers are the most important school-based education factor influencing student academic outcomes (Aarons, Barrow, and Sander, 2007; Goldhaber and Brewer, 1997; Goldhaber, Brewer, and Anderson, 1999; Goldhaber, 2002; Rivkin, Hanushek, and Kain, 2005; Rockoff, 2004; Sanders, Wright, and Horn, 1997). Rivkin, Hanushek, and Kain (2005) found that a one standard deviation (SD) increase in average teacher quality as measured by teacher "value-added" estimates raises average student achievement by at least 0.11 SDs in math and 0.095 SDs in reading.<sup>2</sup>

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<sup>1</sup> In their review of the literature on school climate, Wang and Degol (2016) note that the multidimensional concept does not have a clear definition; in some studies, institutional environment (physical and structural features of the school building) are included as one of the dimensions of school climate.

<sup>2</sup> Value-added models are used in the education literature to measure teacher quality. The models regress student test scores in year  $t$  in a given subject as the dependent variable on student test scores in  $t-1$  in the same subject and the

Several related areas of research support the link between *teacher effectiveness* (as measured by student achievement gains) and both *teacher* and *student outcomes*. First, recent work on teacher effectiveness provides evidence of a strong link between value-added scores and measures of high-quality instructional practice (Grossman et al., 2013; Kane et al., 2011; Kane and Staiger, 2012). Research indicates that teacher contribution to student achievement gains is closely associated with important long-term student outcomes, including college attendance, adult earnings, homeownership, and retirement savings (Hanushek and Woessmann, 2008; Murnane et al., 2000). Further, seminal work by Chetty, Friedman, and Rockoff (2014) provides strong evidence that teacher quality specifically matters for long-term life outcomes. Exposure to a high-quality teacher (as measured by value-added scores) is associated with a higher likelihood of college attendance, a rise in the quality of colleges that students attend, a reduced probability of having a child as a teenager, and positive long-term economic outcomes, including steeper earning trajectories and participation in retirement savings plans.

On the other hand, certain teacher behaviors and actions, including *teacher absenteeism* and *teacher turnover*, can have deleterious effects on *student achievement*. Miller, Murnane, and Willet (2008) estimate a significant, negative relationship between teacher absences and student achievement in fourth-grade mathematics in a large urban school district. Clotfelter, Ladd, and Vigdor (2007) similarly find that increases in teacher absences lead to decreases in student achievement using statewide data from North Carolina. Research has also demonstrated strong evidence of a direct negative effect of teacher turnover on student academic performance in both math and English language arts (ELA) (Ronfeldt, Loeb, and Wyckoff, 2013). Additional studies highlight a strong negative correlation between teacher turnover and student achievement (Boyd et al., 2005; Guin, 2004).

There is evolving evidence on the relationship between *student health and well-being* and *student academic achievement* (Basch, 2011). Busch et al. (2014) conducted a systematic review of longitudinal studies from the past 30 years on the relationship between health-related behaviors and academic performance of adolescents. In general, the studies they reviewed found that healthy eating habits and team sports participation were positively associated with school grades, whereas alcohol use, smoking, and screen time were generally negatively related to academic performance.

Finally, there is emerging evidence that *teacher health and well-being*, and in particular teacher stress, play an important role in *student academic achievement* (Greenberg, Brown, and Abenavoli, 2016). Research has shown a negative association between having a teacher with depressive symptoms and student achievement (McLean and Connor, 2015). Work by Hoglund, Klinge, and Hosan (2015) also shows that teachers who report greater burnout early in the

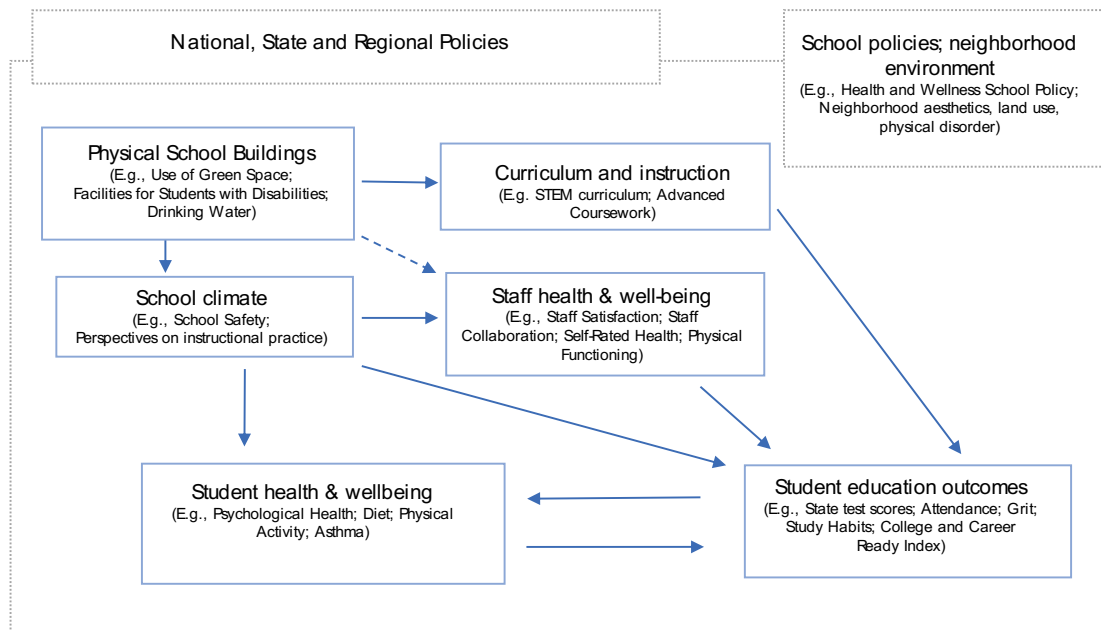
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other subject, student covariates and teacher fixed effects, which are centered around a zero for the sample. Because student test scores are standardized, the coefficients on the teacher fixed effect can be interpreted as the SD units in the test that the teacher contributes to student learning, holding student characteristics constant. For a review of value-added modeling, see Koedel, Mihaly, and Rockoff (2015).

school year experience more behavior problems in their classroom. They also show that when teachers are highly stressed, children show lower levels of social adjustment.

The evidence summarized above guided our conceptual model (see Figure 2.1), which in turn informed our research questions, in which we explore the relationships between the physical building, school climate, school staff health and wellness, and both student health and education outcomes. In the figure, we note that the physical structure of the school building may influence school climate and instruction/curriculum, which in turn influences student and staff health and well-being, and ultimately student education outcomes. New facilities with improved lighting and increased green space can affect student and staff perceptions of the school climate, including interpersonal relationships within the school, connectedness to the school, and feelings of safety. These in turn affect student and staff mental and physical health, such as depression, anxiety, vitality, and social interactions. There is a bi-directional influence between student education and health outcomes. Because these changes take place within a neighborhood and community context, tracking the exchange of factors from the community that enhance or impede the influence of school building infrastructure is also important.

**Figure 2.1. Conceptual Framework Guiding Research Questions**



### 3. Sample Characteristics and Data Sources

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In this section, we provide descriptive statistics for the City of Baltimore and the City Schools district, present details about the schools participating in the study, and offer an overview of the data collection instruments.

#### Baltimore City Public Schools

The City of Baltimore, with an estimated 614,664 residents in 2016 (the time period of the baseline data collection), is the largest city in the state of Maryland (U.S. Census Bureau, undated). The city covers 80.9 square miles. Its population is 63.3 percent black, 31.4 percent white, and 5.1 percent Hispanic. Twenty-one percent of residents are younger than 18 years old. The median household income is \$44,262, with 21.8 percent of residents below the poverty level.

City Schools is the fourth-largest school district in Maryland, serving students in the City of Baltimore. In the 2015–2016 school year, City Schools operated 189 schools (including 31 charter schools) and educated 84,730 students. The student body was 81 percent black and 9 percent Hispanic. Four percent of students were English language learners (students for whom English is a second language), and 72 percent of students were eligible for free or reduced-price lunch (FRL) (Maryland State Department of Education, 2017). Based on 2015–2016 results from the Partnership for Assessment of Readiness for College and Careers standardized test, 14.6 percent of students met or exceeded ELA expectations, and 11.8 percent met or exceeded expectations in math, which is significantly lower than the Maryland state average of 38.7 percent for ELA and 33.7 percent for math.

#### Study Schools

In 2011, the City of Baltimore commissioned a Facility Condition Assessment for City Schools (Jacobs, 2012). The assessment consisted of an Educational Adequacy Assessment (including an inventory of facility features), Building Condition Assessment (i.e., assessing the overall condition of school facilities as well as forecasting school needs), Capacity Development, and a review of City Schools Enrollment Projections. The assessment included the calculations of two indicators for each school building. The Facility Condition Index (FCI) provided an indication of a building's, campus', or portfolio's overall state of condition, with values on a 0–100 percent scale; the score was derived by dividing the repair costs for a facility by a theoretical replacement value. The report also included an Educational Adequacy Score (EAS), which measured the degree to which a school's facilities could adequately support the instructional



mission and methods. The buildings were assessed on eight characteristics related to educational adequacy and scored on a scale of 0–100.<sup>1</sup>

The district subsequently selected 11 buildings for renovation or replacement in the first two years of the 21st Century Buildings Program, with an additional 13 to 17 schools to be renovated in the future. The schools targeted for renovation or replacement are geographically dispersed across the district and include elementary, elementary/middle, middle/high, and high schools. We refer to these 11 schools as “treatment” schools. We selected “comparison” schools by matching treatment schools with other schools across the district, based on school-level student demographic composition, size, geographic proximity to the treatment schools, and school facility conditions.<sup>2</sup> Table 3.1 presents summary statistics for treatment and comparison schools, including demographic composition, total enrollment, site acreage, the year the building was constructed, FCI, and EAS.

Compared with the district as a whole, both comparison and treatment study schools are more disadvantaged, with a larger fraction of students on FRL. Study schools also contain a larger fraction of black students than the entire district, and many of these schools suffer from chronic absenteeism and low proficiency rates in math and ELA. In general, comparison schools are well matched to treatment schools, with similar fractions of black and disabled students and students receiving FRL. The conditions of the school buildings are also similar across the two groups of schools, with both scoring low on the FCI and EAS indexes (on average, the comparison schools score lower on both measures compared with the treatment schools).<sup>3</sup>

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<sup>1</sup> The eight characteristics assessed are: Capacity (the ability of core facilities to meet the needs of the student population); Support for Programs (special spaces or classrooms that support specific curriculum offerings, such as music, sports, science, and technology programs); Technology (the presence of infrastructure, data distribution/storage, and equipment in classrooms and laboratories); Supervision and Security (the extent to which physical configurations help or hinder building operation, including both passive and physical security); Instructional Support (necessary equipment within teaching spaces); Physical Characteristics (the size and shape of individual teaching spaces); Learning Environment (the degree to which learning areas are comfortable, well-lit, odor-free, controllable, and quiet); and Relationship of Spaces (the proximity of instructional spaces to support areas like libraries, restrooms, and student dining and recreational areas).

<sup>2</sup> The study focuses on the 11 treatment schools (and the 11 matched comparison schools) and does not use information about the additional 13 to 18 schools that will be renovated in the next phase of the 21st Century Buildings Program. At the time that data collection started, the additional 13 to 18 schools had not been identified.

<sup>3</sup> According to Jacobs (2012), accounting principles indicate that a value of 65 percent, or the “rule of two-thirds,” be utilized for the FCI threshold for identifying candidate buildings for replacement; a score of 55 is considered to be a “failing grade” in terms of educational adequacy.

**Table 3.1. School Characteristics Used to Identify Matched Comparison Schools**

<b>School Characteristic</b>	<b>Treatment (N = 11)</b>	<b>Comparison (N = 11)</b>
% FRL	88.79	88.40
% Disabled	16.80	17.04
% Black	88.53	87.50
% Hispanic	5.53	4.39
Average Number of Days Students Are Chronically Absent	32	26
% Proficient Reading	38.25	33.78
% Proficient Math	21.95	19.57
% Proficient High School	21.18	21.50
Total Students Enrolled	462	481
Site Acreage	9	6
Building Construct Year	1949	1956
Average FCI*	0.73	0.65
Average EAS*	59.18	56.67

NOTE: Statistics are from the 2015–2016 school year. FRL = free or reduced-price lunch; FCI = Facility Condition Index; EAS = Educational Adequacy Score.

\* Information from Jacobs, 2012.

## Overview of Data Collection

The primary goal for this project was to collect detailed information about (1) student, (2) school staff, (3) schools, and (4) community factors prior to any changes resulting from the 21st Century Buildings Program. Information was collected from numerous sources, including interviews, surveys, site visits and administrative records. The data collection occurred in spring 2016 across the district, with different schools participating in different data collection modules. Below, we describe in detail each of the instruments and provide an overview of the data that was collected (the data instruments are contained in the appendixes).

This report presents initial descriptions and exploratory analyses that summarize the state of the student and school staff health and wellbeing as well as the conditions of the school buildings and neighborhoods prior to renovations, and reports on exploratory associations between multiple measures. Unlike previous research examining the association between health and

student education measures, we use administrative data on student test scores and days attending school. Prior work in this field used self-reported grades as a measure of academic achievement. A meta-analysis found that self-reports are not sufficiently valid and moderated by true levels of school performance and cognitive ability (Kuncel, Crede, and Thomas, 2005). Self-reported grades have been found to be over-reported, with correlations between self-reports and transcript grades around 0.66 (Sanchez and Buddin, 2015).

## Data Sources

Table 3.2 summarizes the data sources, topic areas covered in each data collection, and information about the sample. We describe each of the data sources or collections below.

**Table 3.2. Data Sources and Data Collection Topic Areas**

	<b>Data Source</b>	<b>Topic Area</b>
<b>Individual-Level Primary Data</b>	Student survey	General health status; absence due to health issues; prevalence of asthma and other chronic health condition; noncognitive skills; diet; physical activity; sleep; safety; perceived school environment; school health center
	Staff survey	General health status; absence due to health issues; socio-emotional well-being; staff collaboration; diet; physical activity; sleep
	Principal interview	City Schools health and wellness policies; use of the building as a resource; satisfaction with school facilities and neighborhood around school; partnership within/across schools and citywide; relationship with volunteers and outside partners
	School observation	Use of green space; welcoming shared space; opportunities for physical activity in the school; facilities for students with disabilities; presence of vending machines and various types of beverages available for sale; availability of drinking water
	Neighborhood street segment audit	Neighborhood conditions; safety, aesthetics; advertising; land use; air and noise pollution; physical disorder; social environment and disorder
<b>Secondary Data</b>	School climate survey	Student, staff, and parent perspectives on school climate; school safety; culture that embraces diversity; building quality; staff perspectives on instructional practice and professionalism
	Administrative data	Dropout predictors; student scores on state tests; student enrollment; staff recruitment, retention, and turnover; staff instructional practices and effectiveness

## Individual-Level Primary Data

### *Student Survey*

All students in five treatment and five matched comparison schools in grades 4 through 12 were invited to complete a self-administered survey that focused on a range of topics relevant to their health and well-being. Domains covered in the survey included physical functioning, asthma, anxiety, depression, fatigue, sleep patterns (during weekdays and on weekends), peer relationships, emotional distress, nutrition, physical activity and sedentary behaviors, school climate (e.g., safety, including bullying and school connectedness), and social and emotional learning characteristics (e.g., grit, persistence, academic self-efficacy, self-control, and college or dropout plans). Only students whose parents provided active consent (i.e., signed permission slips with detailed consent language) received the paper surveys, which took about 25 minutes to complete. We fielded two versions of the survey: one for elementary school students in grades 4 through 6 and another for middle/high school students in grades 7 through 12. The surveys were distributed by a project liaison within each school, and administered by a school teacher or the liaison during the school day in May 2016. Paper surveys were scanned and checked for accuracy before being converted to electronic files. We received survey responses from 417 students in the ten schools.<sup>4</sup>

Table 3.3 displays the demographic characteristics for the students who responded to the surveys. Eighty-one percent of the survey respondents were black (compared to 88 percent in the study schools; see Table 3.1), and 14 percent were Hispanic (compared to 5 percent in the study schools). Forty-five percent of survey respondents were female, and 9 percent were English language learners. Survey respondents were approximately evenly distributed across grade levels, with a somewhat smaller percentage of respondents in grade 12 compared to the other grades.

**Table 3.3. Student Survey Demographic Characteristics (N = 417)**

<b>Characteristic</b>	<b>N</b>	<b>Mean</b>
<b>Female</b>	188	45%
<b>Race/ethnicity</b>		
Black	338	81%
Hispanic	58	14%
Asian	4	1%
American Indian	0	0%
Hawaiian/Pacific Islander	0	0%
<b>Title 1 school</b>	317	76%

<sup>4</sup> There were approximately 3,800 students enrolled in the schools at the time we conducted the surveys, and 633 students had parents' consent to have their child take the survey.

<b>Characteristic</b>	<b>N</b>	<b>Mean</b>
<b>English language learner</b>	38	9%
<b>Grade level</b>		
Grade 4	50	12%
Grade 5	54	13%
Grade 6	58	14%
Grade 7	42	10%
Grade 8	46	11%
Grade 9	46	11%
Grade 10	50	12%
Grade 11	46	11%
Grade 12	29	7%

### *Faculty and Staff Survey*

All 626 school staff members (including teachers, principals, administrative and custodial personnel) in five treatment and five matched comparison schools where the principal consented to participate in the study were invited by email to take an online survey of health and well-being. The survey was available for one month, and included items similar to the student survey, such as physical functioning, emotional well-being, sleep patterns (during weekdays and on weekends), nutrition, physical activity, tobacco and alcohol use, school climate (e.g., staff collaboration, trust among teachers, and satisfaction with learning environment), satisfaction with building conditions, and background information (e.g., job position, subject taught, teaching arrangement, etc.). In total, 411 staff in the ten schools consented to and completed the survey.

Table 3.4 displays the demographic characteristics of the school staff who completed the online survey. A majority of the survey respondents are female, and almost 50 percent are black. Sixty-three percent of staff have a master’s degree; on average, they have been teaching in the school for approximately five years. Thirty-four percent of the survey respondents are ELA teachers, and 15 percent are math teachers. While 50 percent of the sample are regular classroom teachers, the survey sample includes administrators, service providers, and support staff.

**Table 3.4. Faculty and Staff Survey Demographic Characteristics (N = 411)**

<b>Characteristic</b>	<b>N</b>	<b>Mean</b>
<b>Female</b>	300	73%
<b>Race/ethnicity</b>		
Native American/Alaskan	4	1%
Asian	24	6%
Black	193	48%
Hispanic	12	3%
White	153	38%
Other	12	3%

<b>Characteristic</b>	<b>N</b>	<b>Mean</b>
<b>Education</b>		
High School Degree	18	5%
Less than College	11	3%
College	92	25%
Master's Degree	232	63%
Doctorate	7	2%
<b>Years Working in the District</b>	10.5	10.47
<b>Years Working in School</b>	4.8	4.83
<b>Subject</b>		
ELA	140	34%
Career	16	4%
English as a Second Language	8	2%
Foreign Language	4	1%
Life Skills	4	1%
Math	62	15%
Other	8	29%
Physical Education	21	2%
Science	21	5%
Social Studies	8	5%
Visual Arts		2%
<b>Job Type</b>		
Regular Teacher	205	50%
Paraprofessional	41	10%
Special Education Teacher	61	15%
Service Provider	49	12%
Model Teacher	25	6%
Support Staff	25	6%
Administration Staff	29	7%
Other Staff	4	1%
Individualized Education Program Staff	4	1%

### *Principal Interview*

We interviewed 12 principals in participating schools and collected information about school wellness policies (e.g., nutrition curriculum, restrictions on food for celebrations, promotion of physical activity); use of green space on school grounds; use of the building as a community resource; science, technology, engineering, and mathematics (STEM) curriculum; and current conditions of the school building. Questions in the principal interview were semistructured in nature to gather first-person perspectives and allow for ample description. Interviews also included a short questionnaire about the school's health and wellness policies. These questions were pulled from various school wellness policy surveys and assessments, including the *WellSAT-I: Wellness School Assessment Tool for Implementation* for principals; the Youth, Education, Society *School Health Policies and Practices Questionnaire*; the Centers for Disease

Control and Prevention *Healthy and Safe School Environment School Questionnaire*; and the *School Physical Activity Policy Assessment*.<sup>5</sup>

## Built Environment Primary Data

### *School Observations*

We conducted observations in 12 schools (ten of the schools that participated in the individual-level primary data collection and one additional treatment and one additional comparison school), documenting the condition and availability of features on a five-point scale for the physical building, outdoor space, learning environment, traditional and specialty classrooms, social areas and transition spaces. Researchers used the *Bridging the Gap* school observation tool (Bridging the Gap, undated-b) for items about the school’s outdoor physical environment (e.g., condition of sports facilities and playground equipment; availability of outdoor drinking fountains or garbage containers; and the presence of such items as graffiti or broken glass). Items related to the school’s learning environment, transition spaces, and social spaces were based on the six-factor *School Building Assessment* that focuses on six key elements of building assessment: the school building’s setting; organization of the physical building space; connection of the inside to the outside of the building, internal traffic patterns within the school; ability of the school to accommodate diverse needs; and environmental conditions within the building (Sanoff, Pasalar, and Hashas, 2001).

School observations were conducted simultaneously by two observers during the school day. To support reliability across observers’ responses, prior to going into the field, observers were trained in how to complete the auditing tool and calibrate responses. This occurred in two phases. First, observers spent one day discussing the observation protocol and associated guidebook, determining how to respond to each item. Clarification on how to respond to each item was written into the guidebook at this time. Second, observers then spent one day in a City Schools school that was not part of the research study (the pilot school) to test the protocol and guidebook. Each observer spent the day in the school completing the protocol—observing the same spaces concurrently. At the end of the day, observers compared responses. Out of 148 items, all four observers concurred on 59 items (100 percent alignment on 40 percent of the items). For the remaining 89 items in which there were differences of opinion in response (50 percent or 75 percent alignment), observers walked through the school together to determine the agreed-upon response. In this manner, all four observers worked toward a common understanding of how to respond to each item on the protocol. Any adjustments needed were made to the guidebook to ensure clarity and understanding at this time. Once in the field, two observers walked through each school concurrently, observing the same spaces at the same time,

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<sup>5</sup> For more information, see Read and Schwartz, undated; Centers for Disease Control and Prevention, 2015b; Centers for Disease Control and Prevention, undated; Active Living Research, 2018.

marking their entries. After each portion of the school was completed, the observers would compare responses. Any differences in responses between observers were resolved in the field at that time. Thus, at the end of the observation day, the team recorded one agreed-upon response to each item for each school.

### *Neighborhood Street Segment Audits*

The street segment audit tool was adapted from the Bridging the Gap Street Segment Tool to capture features of the schools' surrounding environment that could be affected by school renovation (Bridging the Gap, homepage, undated-a). The tool captured street characteristics that could influence physical activity: safety signs (e.g., pedestrian crossing), building conditions (e.g., bars on windows), amenities (e.g., benches), advertising (e.g., alcohol), and land use (e.g., integration). In addition, the observation tool was used to capture social environment and physical disorder, economic development, air and noise pollution. Street segments selection included all streets along the perimeter of each school and 4 additional segments randomly chosen within a tenth-of-a-mile from each school.<sup>6</sup> We also repeated audits on a random sample of 10 percent of these segments for a reliability analysis. The final sample was 156 unique segments and an average of 8.7 segments per school. Four data collectors were hired, and trained in a three-day session on the street segment observation tool. Data collectors worked in teams of two to complete the street segment audit during the school day.

## Secondary Data

### *School Climate Survey*

School climate surveys are fielded districtwide by City Schools in January and February of each year. A different version of the survey is given to students, parents, and school staff. The survey can be completed online using a computer, smartphone, or tablet, and responses are anonymous. The survey collects information on 11 dimensions of the school environment, such as the quality of the teaching staff and administration, the physical environment, the learning climate, family involvement, satisfaction with school resources, and safety. For example, on the topic of the physical environment, students, staff, and parents are asked whether they agree with such statements as “The school building is clean and well maintained” and “Students have

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<sup>6</sup> Two treatment and two matched comparison schools were excluded because the renovations had already begun in the treatment schools by the time the research grant was in place, and there were a number of disruptions in the neighborhood around these schools. For reliability analyses, we conducted two audits on 10 percent of our sample (n = 15).



satisfying food options at this school.” Results from the survey are publicly available at the school level a few months after the survey closes.<sup>7</sup>

### *Administrative Data*

We collected student, staff and school-level information for the entire district population directly from the school district for school years 2011–2012 to 2015–2016.<sup>8</sup> For students, the administrative data included demographic characteristics (e.g., race/ethnicity, gender, age, home language); school-specific indicators (e.g., grade level, English language learner, gifted status); absenteeism; withdrawal; promotion to next grade; course codes; and scores on standardized assessments. For staff, the file included demographic characteristics (e.g., race/ethnicity, gender, age); salary; highest degree earned; certification status; years of experience in the district; full or part-time status; current job title; scores on the state-sponsored teacher evaluation tool; and (for teachers only) course codes. The course codes from the student and teacher files were used to link students to their teachers. School-level information included charter or magnet status, student enrollment, grade bands served, and school-level aggregates of sensitive student information (e.g., receipt of FRL, special education status, disciplinary incidents, homelessness).

While the purpose of this baseline data collection was to collect information prior to the start of the 21st Century school initiative, because of the timing of the start of construction across different schools, the timing of grant funding, and individual principals’ decisions to participate in the data collection, the sample of schools included in each data collection mode varies. Table 3.5 summarizes the number of schools that participated in different types of data collection model.

**Table 3.5. Number of Schools Participating in Different Data Collection Modes**

<b>Data Collection Mode</b>	<b>Treatment School</b>	<b>Comparison School</b>
Administrative Data	11	11
Climate Survey	11	11
Street Segment Audit	9	9
School Observation	6	6
Principal Interview	6	6
School Staff Survey	5	5
Student Survey	5	5

<sup>7</sup> For current survey results, see City Schools, undated-b.

<sup>8</sup> Teacher evaluation data were only available for the 2013–2014 through 2015–2016 school years. We also note that all administrative data collected can be linked to the other data collected. We received deidentified staff-level data that a third party linked to the survey responses.

Four schools participated in only the administrative data collection and the school climate surveys because construction already had begun by the time the research grant was funded; we were able to obtain historical information from these secondary data sources. An additional six schools participated in the street segment audits, but were not included in other primary data collection modes because the principals opted out of the study. Next, because one school declined to participate in the surveys, this school and its matched comparison were included in the school observation and principal interviews, but not the student and school staff surveys. A total of ten schools participated in all data collection modes. In the analysis presented in Chapter Four, we focus on these ten schools for research questions 1 and 2; for research question 3, the sample includes 16 schools that participated in the street segment audit and had City Schools climate survey responses.

## 4. Exploratory Analysis of Baseline Data

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The rich and diverse information collected at baseline provides a unique opportunity to examine the cross-sectional relationship between school climate, student and teacher health and well-being, and academic achievement, as well as the relationship between conditions inside and surrounding the school. These analyses were selected because they are the relationships that we expect are the most likely to change as a result of the school building renovations. While these analyses cannot elucidate any causal relationships, they provide a critical starting point in our understanding of the factors that may be influenced by changes to the school facility conditions. We present descriptive analysis to address three research questions that examine associations likely to be affected by the renovation of school buildings and were jointly identified by RWJF and our team.<sup>1</sup>

### Students' Perception of School Climate, Student Health and Well-being, and Student Education Outcomes

The first research question—“What is the relationship between students' perception of school climate, student health and well-being and student education outcomes?”—draws on data collected from the student surveys combined with data collected about students from administrative files. We created survey domain-specific indexes to measure school climate, student health and well-being, and student education outcomes using test scores, attendance, and social and emotional learning competencies. We first describe each measure below, and then summarize the measures overall, and present the correlational relationship between the two types of measures.

We focused on two measures of *school climate*, as perceived by the student.<sup>2</sup> The first is an index of school connectedness, which measures how much the student likes attending school (e.g., “I enjoy being at school,” “doing well at school will help me in the future,” “doing well in school is important to me”).<sup>3</sup> The second is an index that measures the students' perception of

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<sup>1</sup> There are a number of additional analyses we plan to conduct with these data. In particular, comparing the treatment and comparison groups will be a core element of the post-renovation evaluation analyses, including examining differences between the two groups at baseline.

<sup>2</sup> The student survey instrument is listed in Appendix A and contains many additional items that are not summarized here due to space constraints. The measures that were selected for this analysis were the ones that most closely align with the topic area.

<sup>3</sup> These items were taken from the *Hemingway Measure of Adolescent Connectedness* (seven items). See more at Gray, 2018.

school safety (the extent to which the student feels safe traveling to school, in hallways, and in classrooms).<sup>4</sup>

Next, we discuss 11 measures of *student health and well-being*. We asked students participating in survey data collection to answer questions from the Patient-Reported Outcomes Measurement Information System (PROMIS) Pediatric Profile to measure their physical and mental health, including the domains on Mobility, Anxiety, Depressive Symptoms, Fatigue, Asthma, and Peer Relations.<sup>5,6</sup> We also asked students to complete two domains from the Strength and Difficulties Questionnaire related to Emotional Distress and Conduct Problems.<sup>7</sup> Lastly, students were asked questions related to physical activity, and from these items we created indicators for the student being Sedentary and Active, and a continuous measure of the hours they spent sitting at home.<sup>8</sup>

*Student education outcomes* were assessed using ten measures. The survey included a number of social and emotional learning instruments that have been shown to predict short and long term academic success in students. We focus on two of these instruments: Self Control and Persistence. The Self Control items measure the extent to which students can self-regulate, such as wait in line patiently and control their temper, whereas the Persistence items measure the extent to which a student tries when faced with adversity (e.g., “If I solve a problem wrong the first time, I just keep trying until I get it right,” “When I do badly on a test, I work harder the next time”).<sup>9</sup> We also fielded two modules to measure the extent to which the student plans on dropping out of high school (“Have you ever thought seriously about dropping out of school?”

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<sup>4</sup> The school safety measures were taken from Chicago Public Schools 5Essential survey (four items). See more at University of Chicago, undated.

<sup>5</sup> For example, the Mobility module includes four questions related to physical functioning, such as “I could do sports and exercise that other kids my age could do” and “I could get up from the floor.” All constructs are calculated from four items, except the Asthma measure, which is calculated from eight items. The full instrument is provided in Appendix A.

<sup>6</sup> To calculate PROMIS scores, we totaled the answers within each module, and then converted the total score to a T-score using the relevant conversion table. A T-score is a metric where 50 is the mean of a relevant reference population and ten is the SD of that population. Higher scores indicate more of the concept being measured, which can be positive (e.g., Mobility), or negative (e.g., Anxiety). For more information, see HealthMeasures, 2018.

<sup>7</sup> The Strengths and Difficulties Questionnaire is a brief screening questionnaire for three- to 16-year-olds. There were five items in the Emotional Distress measure and five items in the Conduct Problems measure. The two modules are scored by totaling the responses. For more information, see Youth in Mind, undated.

<sup>8</sup> The Sedentary indicator is coded 1 if the student reports never walking to school, never biking to school, not participating in PE in the last week, and not participating in any sport, games or dance in the last week (four items). The Active indicator is coded 1 if the student reports spending four days or more doing sports, dance, or playing games in which they were very active in the last week (one item). The “Hours sit at home” measure was calculated by adding the number of hours spent watching TV, playing video games, and playing on the computer for fun on an average school day (three items).

<sup>9</sup> These measures were taken from the Measuring Elementary School Students’ Social and Emotional Skill report. The Self-Control measure is composed of seven items, with different questions for elementary and middle/high school students. The Persistence measure is composed of three items. For more information, see Child Trends, 2014.

and “Have you ever stopped going to classes for a while because you were seriously thinking about dropping out of school?”), and one question on whether the student plans on attending college. Finally, we merged information from administrative records on the student’s standardized math and ELA scale score on the state Partnership for Assessment of Readiness for College and Careers state test, an indicator for whether the student was promoted to the next grade, and a count of the number of days that the student attended school. We standardized the test scores using the distribution of scores from the entire state of Maryland.

The school climate, student health, and education measures are summarized in Table 4.1.

**Table 4.1. Summary Statistics for Outcome Measures Analyzed in Research Question 1**

<b>Outcome</b>	<b>Mean</b>	<b>SD</b>	<b>Minimum</b>	<b>Maximum</b>	<b>N</b>	<b>ICC</b>
<b>Student Perception of School Climate</b>						
School Connectedness Index (Range 1–4)	3.05	0.48	1.29	4.00	416	0.06
Safety Index (Range 1–4)	2.88	0.82	1.00	4.00	398	0.03
<b>Student Health Measures</b>						
Physical Functioning Mobility T-Score (Range 0–100)	49.31	9.88	20.10	57.10	367	0.02
Anxiety in the Past 7 Days T-Score (Range 0–100)	49.39	12.20	35.60	79.50	366	0.00
Depressive Symptoms in the Past 7 Days T-Score (Range 0–100)	49.58	12.09	37.70	78.70	373	0.02
Tiredness and Fatigue T-Score (Range 0–100)	49.39	11.19	35.40	77.60	368	0.04
Asthma Severity T-Score (Range 0–100)	47.17	12.46	31.50	76.20	151	0.00
Peer Relations T-Score (Range 0–100)	42.93	10.42	23.00	61.10	372	0.05
Emotional Distress Index (Range 0–10)	2.56	2.58	0	10	370	0.00
Conduct Problems Index (Range 0–10)	2.90	2.27	0	10	366	0.02
Sedentary Indicator	0.05	0.21	0	1	393	0.10
Active Indicator	0.31	0.46	0	1	415	0.06
Average Number of Hours Sit at Home per Day	4.08	2.94	0	10	405	0.02
<b>Student Education Measures</b>						
Self-Control Index (Range 1–4)	3.03	0.61	1	4	426	0.08
Persistence Index (Range 1–4)	3.13	0.67	1	4	414	0.04
Thinking About Dropping Out Indicator	0.19	0.39	0	1	301	0.06
Skip Class Because Thinking About Dropping Out Indicator	0.11	0.31	0	1	303	0.02
Plan to Attend College Indicator	0.89	0.32	0	1	390	0.04
Math Scale Score, Standardized	-0.94	0.74	-2.79	1.37	335	0.05
ELA Scale Score, Standardized	-0.92	0.79	-2.75	1.63	321	0.14
Math Score Growth, Standardized	-0.08	0.65	-2.00	1.92	193	0.03

<b>Outcome</b>	<b>Mean</b>	<b>SD</b>	<b>Minimum</b>	<b>Maximum</b>	<b>N</b>	<b>ICC</b>
ELA Score Growth, Standardized	-0.02	0.64	-2.24	1.66	210	0.00
Days Attended School	156.33	33.09	0	179	433	0.55
Promoted to Next Grade	0.91	0.29	0	1	433	0.41

NOTE: ICC = intra-class correlations.

Baltimore students responding to the surveys report relatively high levels of school connectedness, but on average report feeling less than “mostly safe” (i.e., a score of 3 on the 4-point scale) in the school building. Turning to the health measures, on average, students completing the survey are close to the mean on each PROMIS domain. Similarly, the Emotional distress and Conduct Problems scores are, on average, in the normal range, but in examining the maximum scores, we see that some students do exhibit higher score, which may be cause for concern.<sup>10</sup> Examining physical activity, we see that 5 percent of the respondents can be considered sedentary, and only 31 percent are active, with respondents spending on average four hours a day sitting at home.

The mean of the Self Control and Persistence indicators are considered to be in the “High” category, with higher scores indicating higher levels of self-control and persistence. The benchmark for this category is a score of 3, but there is considerable variation in these measures as well, with some students scoring as low as 1. Nineteen percent of students report thinking about dropping out of high school, and 11 percent report skipping class as a result of thinking about dropping out, whereas 89 percent report planning on attending college. Turning to the education measures from the administrative data, we see that Baltimore students in the sample score almost an entire SD below the Maryland state mean on the math and ELA state test, and on average their test score growth is close to 0. Students attend on average only 156 days of school (from a maximum of 179). In addition, 91 percent of students are promoted to the next grade. So, while the students have relatively high social and emotional learning scores, these are not reflected in their performance on tests or their attendance in school.

The last column of the table reports the ICC, or the degree of agreement, at the school level, for each construct. In general, the ICCs for the survey-based measures are small, ranging from 0 to 0.10, indicating that there is not strong within-school correlation in these measures. ICCs for the student achievement measures are similar to previously reported findings in the education literature, and we find relatively large ICCs for the Days Attend School and Promoted measures, indicating that these measures have a high within-school correlation.

Next, we examined two sets of pairwise correlations: the association between students’ perception of school climate and student health and well-being, and the association between health and well-being measures and education measures in our sample. The tables present

<sup>10</sup> Emotional distress scores of 0–4 and Conduct Problem scores of 0–3 are considered normal (National Health Service, Leicestershire Partnership, undated).

Pearson correlation coefficients, with statistical significance at the 5-percent level denoted by a star. We adjust the *p*-value using the Bonferroni adjustment to account for multiple comparisons. This analysis can provide insights about the association between different modes of outcomes for students, but should not be interpreted as causal evidence. The results are shown in Table 4.2.<sup>11</sup>

**Table 4.2. Correlation Coefficients for School Climate and Student Health and Well-Being**

<b>Student Health Measure</b>	<b>School Connectedness Index</b>	<b>Safety Index</b>
Mobility T-Score	0.17	0.12
Anxiety T-Score	-0.07	<b>-0.23*</b>
Depressive Symptoms T-Score	-0.14	<b>-0.22*</b>
Fatigue T-Score	-0.15	<b>-0.22*</b>
Asthma T-Score	-0.04	-0.15
Peer Relations T-Score	<b>0.33*</b>	<b>0.24*</b>
Emotional Distress Index	-0.07	-0.15
Conduct Problems Index	-0.08	-0.04
Sedentary Indicator	-0.14	0.00
Active Indicator	0.08	0.02
Hours Sit at Home	-0.08	0.07

NOTES: Green represents positive correlations, red represents negative correlations, and darker colors represent stronger relationships. \* and **bold** denote significance at the 5-percent level, where significance was calculated using the Bonferroni correction for multiple comparisons.

School climate, in particular students’ perception of school safety, is negatively related to student mental health, such as anxiety, depression, and fatigue, meaning that lower levels of student perceived safety are associated with higher incidence of mental health concerns. In addition, the Peer Relation T-score is positively correlated with both the safety and the school connectedness measure of school climate.

In Table 4.3, we present the correlation coefficients for the relationship between student health and well-being measure and student education outcomes. In general, we observed moderate correlations between student health and well-being measures and education measures, with 0.33 as the highest correlation coefficient (in absolute value). The direction of the correlation between the PROMIS domain T-scores and the education measures are as expected, with particularly strong and statistically significant correlations between the health measures and plans for the student to drop out of school or the student skipping class because of thinking about dropping out of school. In general, the PROMIS measures are not strongly correlated with Math

<sup>11</sup> The correlation coefficients presented here and in analyses below are not adjusted for measurement error, and therefore they may be attenuated, or reduced in absolute value. As a result, these correlations can be interpreted as lower bounds (in absolute value) on the true associations between the constructs.

and ELA scale scores or test score growth, except for the Fatigue and Peer Relations T-scores, the latter of which has a correlation coefficient of 0.17 with Math scale scores, and 0.25 with ELA scale scores (but were not statistically significant). The Emotional Distress and Conduct Problems indices are similarly correlated with education outcomes as the PROMIS T-scores, with the highest correlations to the dropout measures. Lastly, from the physical activity measures, we see the strongest and only statistically significant correlation was between the Sedentary indicator and the number of days attending school by the student.



Table 4.3. Correlation Coefficients for Student Health and Education Measures

Student Education Measures	Student Health Measures										
	Mobility T-score	Anxiety T-score	Depressive Symptoms T-score	Fatigue T-score	Asthma T-score	Peer Relations T-score	Emotional Distress Index	Conduct Problems Index	Sedentary Indicator	Active Indicator	Hours Sit at Home
Self-Control Index	0.17	-0.13	-0.17	-0.10	-0.05	<b>0.24*</b>	-0.07	-0.10	-0.04	0.03	-0.12
Persistence Index	0.13	-0.09	-0.09	-0.13	-0.05	<b>0.21*</b>	-0.01	-0.05	-0.10	0.15	-0.04
Dropout Think Indicator	<b>-0.24*</b>	0.21	<b>0.25*</b>	0.20	0.17	-0.03	<b>0.27*</b>	<b>0.23*</b>	<b>0.21*</b>	-0.06	-0.13
Dropout Skip Class Indicator	<b>-0.26*</b>	<b>0.28*</b>	<b>0.33*</b>	<b>0.23*</b>	0.26	-0.05	<b>0.29*</b>	<b>0.23*</b>	0.10	-0.01	-0.12
Plan College Indicator	0.10	-0.11	-0.13	-0.08	-0.03	0.08	-0.03	0.00	-0.16	0.09	-0.07
Math Scale Score, Standardized	0.13	-0.09	-0.13	-0.15	0.14	0.17	-0.10	-0.12	0.05	0.05	0.01
ELA Scale Score, Standardized	0.12	-0.03	-0.09	-0.10	0.09	<b>0.25*</b>	-0.05	-0.10	-0.07	0.05	0.02
Math Score Growth	0.02	-0.10	-0.04	-0.02	0.14	-0.04	-0.09	-0.07	0.05	0.01	-0.06
ELA Score Growth	0.05	0.08	0.01	0.10	0.02	0.19	-0.05	0.00	-0.10	0.06	-0.03
Days Attended School	0.09	-0.06	-0.14	-0.12	-0.03	0.10	-0.08	-0.07	<b>-0.19*</b>	0.12	0.03
Promoted to Next Grade	0.06	-0.08	-0.13	-0.10	0.00	0.06	-0.07	-0.06	-0.16	0.13	-0.01

NOTES: Green represents positive correlations, red represents negative correlations, and darker colors represent stronger relationships. \* **and bold** denote significance at the 5-percent level, where significance was calculated using the Bonferroni correction for multiple comparisons.

## School Staff Perception of School Climate, Staff Health and Well-Being, and Student Education Outcomes

We use information from the school staff surveys and administrative data collected from students to answer research question 2—“What is the relationship between school staffs’ perceptions of school climate, staff health and well-being, and their students’ education outcomes?”<sup>25</sup> Similar to the analysis presented for the previous research question, we create domain-specific measures of teachers’ perceptions of school climate and teacher health, and measures of student education outcomes. All measures in the analysis presented here are calculated at the teacher level; for student education outcomes, we focus on measures collected in the administrative data only and not the student surveys.<sup>26</sup>

We use four measures of *staff perception of school climate* that are taken from the Chicago Public School’s 5Essential staff survey.<sup>27</sup> We calculate indexes for School Commitment (e.g., “I wouldn’t want to work in any other school,” “I feel loyal to this school”), Staff Communication (e.g., “In this school year, how often have you had conversations with colleagues about what helps students learn the best”), Collective Responsibility (e.g., “I take responsibility for improving the school”) and Teacher-Teacher Trust (e.g., “Teachers in this school trust each other,” “It’s ok in this school to discuss feelings, worries, and frustrations with other teachers”).<sup>28</sup>

The analysis focuses on 15 measures of *staff health and well-being* collected in the online school staff survey. To measure staff physical and mental health, we fielded the SF-36, a short-form health instrument developed at the RAND Corporation over 25 years ago. The instrument covers eight domains of health, including Physical Functioning, Physical Role, Emotional Role, Vitality, Mental Health, Social Functioning, Bodily Pain, and General Health, with each domain scored on a scale of 0–100, and higher scores representing more favorable health outcomes.<sup>29</sup> We also asked school staff to report the number of days they were absent from school due to health concerns. Staff also completed questions regarding their nutrition, and we constructed five

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<sup>25</sup> While we summarize responses to the survey from all school staff, in the analysis examining association with student outcomes we only report findings on ELA and math teachers, because we are not able to link other staff members to students using course files.

<sup>26</sup> We do not include measures of student social and emotional learning here, because very few students who completed the health and well-being survey can be linked to teachers who also completed their health and well-being survey, and the responses from students who we are able to link are likely not representative of the teachers’ classroom.

<sup>27</sup> University of Chicago, undated.

<sup>28</sup> School Commitment includes four items, Staff Communication includes five items, Collective Responsibility includes six items, and Teacher-Teacher Trust includes four items.

<sup>29</sup> See RAND Corporation, undated, for more details. The number of items for each measure are listed in parentheses: Physical Functioning (ten), Physical Role (four), Emotional Role (three), Vitality (four), Mental Health (five), Social Functioning (two), Bodily Pain (two), and General Health (five).

measures from these questions, including an indicator for whether they eat sufficient numbers of fruits and vegetables (Health Food Indicator), indicators for whether they avoid sugary drinks and junk food (Avoid Sugary Drinks and Avoid Junk Food), an indicator for whether they drink at least three cups of water a day (Drink Sufficient Water Indicator), and a self-assessed rating of their diet on a scale of 1 to 4 (Diet Assessment).<sup>30</sup> Lastly, we examine one measure of physical activity created from the Three-Question Physical Activity Assessment: an indicator for whether they receive sufficient exercise (Physical Activity Sufficient).<sup>31</sup>

For measures of *student education outcomes*, here we focus on four measures. In the first set of measures, we estimate the extent to which math and ELA teachers contribute to student test score growth, controlling for student characteristics.<sup>32</sup> In addition, we also include a measure of the number of days the student attended school when they were linked to a particular teacher.

The measures used in the teacher-level analyses are summarized in Table 4.4. We find that City Schools staff score highest on the Staff Communication index, and score lowest on the Collective Responsibility index. We compared the scores for teachers on the eight domains in the SF-36 with U.S. aggregated norms for a healthy population, and found some interesting differences. First, teachers in our sample scored higher than the healthy national average on Physical Functioning (91 in our sample versus a U.S. average of 84), and scored somewhat higher on the Bodily Pain index (80 in our sample versus a U.S. average of 75).<sup>33</sup> However, teachers scored significantly lower than the national average on two indicators: Vitality (53 in our sample versus a national average of 61) and Emotional Role (67 in our sample versus a national average of 81). This indicates that compared to the national average, Baltimore teachers report feeling less energized and happy (Vitality) and report having more difficulty performing work or report accomplishing less work due to their emotional health (Emotional Role). Teachers reported being absent an average of five days per year. The measures of teacher nutrition indicate that 26 percent of teachers report eating a sufficient number of fruits and vegetables, and approximately 51 percent report avoiding junk foods. About 74 percent of teachers report drinking at least three glasses of water per day, and teachers assess their diet at an average score of 3.43 on a 4-point scale. Finally, the physical activity measure indicates that 31 percent of teachers report receiving sufficient physical activity. The measures of teacher contribution to student achievement growth in math and ELA are centered at 0 for the sample by design, but vary more for ELA than math. Interestingly, in this small sample where we could match students to their math and ELA teachers, we see that students attend fewer days of school, around 143

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<sup>30</sup> See U.S. Department of Agriculture, 2018. The number of items for each measure are listed in parentheses: Health Food Indicator (two), Avoid Sugary Drinks (three) and Avoid Junk Food (two), Drink Sufficient Water Indicator (one), Diet Assessment (one).

<sup>31</sup> See Smith, Marshall, and Huang, 2005, for more details (three items).

<sup>32</sup> In our value added model, we control for student race, ethnicity, gender, whether they are receiving Title 1 funds, and ELL status.

<sup>33</sup> A higher score on the SF-36 domain means that the respondent is healthier, so a higher Bodily Pain index score indicates less bodily pain.

days out of a possible 179, as compared with the full survey sample (summarized in Table 4.4). Finally, the table also includes the ICC at the school level for each of the constructs. Not surprisingly, the measures of school climate are more correlated within the school as compared with the measures of staff health, which are generally uncorrelated within schools.

**Table 4.4. Summary Statistics for Outcome Measures Analyzed in Research Question 2**

<b>Outcome</b>	<b>Mean</b>	<b>S.D.</b>	<b>Min</b>	<b>Max</b>	<b>N</b>	<b>ICC</b>
<b>Staff Perception of School Climate</b>						
School Commitment Index (Range 1–4)	2.66	0.75	1.00	4.00	149	0.24
Staff Communication Index (Range 1–4)	3.15	0.47	1.67	4.00	145	0.00
Collective Responsibility Index (Range 1–4)	2.49	0.76	0.60	4.00	146	0.18
Teacher-Teacher Trust Index (Range 1–4)	2.94	0.66	1.00	4.00	145	0.05
<b>School Staff Health Measures</b>						
Physical Functioning (Range 0–100)	91.15	15.76	0	100	145	0.06
Physical Role (Range 0–100)	82.07	32.64	0	100	145	0.00
Emotional Role (Range 0–100)	67.36	43.30	0	100	145	0.00
Vitality (Range 0–100)	52.55	20.99	0	100	145	0.04
Mental Health (Range 0–100)	72.93	18.07	4	100	145	0.02
Social Functioning (Range 0–100)	78.99	23.32	0	100	145	0.00
Bodily Pain (Range 0–100)	80.24	21.11	22.5	100	145	0.01
General Health (Range 0–100)	71.38	19.76	20	100	145	0.00
Days Absent Due to Health	5.19	19.42	0	225	144	0.02
Healthy Food Indicator	0.26	0.44	0	1	144	0.05
Avoid Sugary Drinks Indicator	0.48	0.50	0	1	143	0.00
Avoid Junk Food Indicator	0.51	0.50	0	1	144	0.09
Drink Sufficient Water Indicator	0.74	0.44	0	1	145	0.00
Diet Self-Assessment (Range 1–4)	3.41	0.83	2	5	144	0.01
Physical Activity Sufficient Indicator	0.31	0.47	0	1	143	0.05
<b>Student Education Measures at the Teacher Level</b>						
Math Score Contribution	–0.01	0.27	–0.57	0.75	52	N/A
ELA Score Contribution	–0.05	0.30	–0.99	0.50	37	N/A
Attend School (Math Teacher)	143.27	14.32	97.09	169.64	103	N/A
Attend School (ELA Teacher)	141.70	13.70	102.52	169.64	108	N/A

In Table 4.5, we present results from examining the association between school staffs’ perception of school climate and staff health and well-being. Two of the four school climate measures stand out as having positive and statistically significant relationships with school staff health outcomes: School Commitment and Teacher-Teacher Trust. Both of these measures are

positively associated with Emotional Role and Vitality, the two measures on which City Schools staff scored significantly lower than the healthy national average. School Commitment is also positively associated with the Mental Health index. The other measures of staff health are not statistically significantly associated with school climate.

**Table 4.5. Correlation Coefficients for School Staff Perception of School Climate and Teacher Health Measures**

Teacher Health Measure	School Commitment Index	Staff Communication Index	Collective Responsibility Index	Teacher-Teacher Trust Index
Physical Functioning (Range 0–100)	0.06	–0.03	0.17	–0.01
Physical Role (Range 0–100)	0.26	0.05	0.03	0.25
Emotional Role (Range 0–100)	<b>0.36*</b>	0.15	0.15	<b>0.31*</b>
Vitality (Range 0–100)	<b>0.39*</b>	0.12	0.26	<b>0.39*</b>
Mental Health (Range 0–100)	<b>0.32*</b>	0.01	0.13	0.21
Social Functioning (Range 0–100)	0.26	0.00	0.08	0.30
Bodily Pain (Range 0–100)	0.20	0.08	0.04	0.21
General Health (Range 0–100)	0.12	0.06	0.08	0.16
Days Absent Due to Health	–0.18	–0.09	–0.14	–0.16
Healthy Food Indicator	–0.10	–0.04	0.04	0.06
Avoid Sugary Drinks Indicator	–0.02	–0.10	0.16	0.05
Avoid Junk Food Indicator	0.16	0.09	0.08	0.02
Drink Sufficient Water Indicator	–0.07	0.14	0.09	0.05
Diet Self-Assessment (Range 1–4)	0.19	0.13	0.19	0.16
Physical Activity Sufficient Indicator	–0.06	0.00	0.08	0.01

NOTES: Green represents positive correlations, red represents negative correlations, and darker colors represent stronger relationships. \* **and bold** denote significance at the 5-percent level, where significance was calculated using the Bonferroni correction for multiple comparisons.

Next, we examined the relationship between teacher health and well-being and student education outcomes measured at the teacher level, as shown in Table 4.6. These analyses are restricted to math and ELA teachers who can be linked to students using course codes. It is important to note that the analysis sample is quite small here, because we were only able to match approximately 70 teachers with survey responses to student test scores, and this may explain the lack of statistically significant associations.

**Table 4.6. Correlation Coefficients for Teacher Health and Student Education Measures**

<b>Teacher Health Measure</b>	<b>Math Score Contribution</b>	<b>ELA Score Contribution</b>	<b>Attend School (Math Teacher)</b>	<b>Attend School (ELA Teacher)</b>
Physical Functioning (Range 0–100)	0.00	0.10	-0.15	0.06
Physical Role (Range 0–100)	-0.03	-0.06	-0.07	0.06
Emotional Role (Range 0–100)	-0.36	0.02	-0.02	0.04
Vitality (Range 0–100)	-0.03	0.07	0.03	0.03
Mental Health (Range 0–100)	-0.23	0.07	0.05	0.00
Social Functioning (Range 0–100)	-0.17	0.25	0.10	0.14
Bodily Pain (Range 0–100)	0.18	0.22	0.02	0.01
General Health (Range 0–100)	0.01	-0.12	0.05	0.03
Days Absent Due to Health	-0.03	-0.35	-0.04	0.06
Healthy Food Indicator	0.16	0.21	0.24	0.09
Avoid Sugary Drinks Indicator	0.10	0.08	0.02	-0.03
Avoid Junk Food Indicator	-0.06	-0.47	-0.05	-0.13
Drink Sufficient Water Indicator	-0.11	0.09	-0.08	-0.09
Diet Self-Assessment (Range 1–4)	-0.08	-0.03	0.09	-0.11
Physical Activity Sufficient Indicator	0.01	0.27	-0.18	0.00

NOTES: Green represents positive correlations, red represents negative correlations, and darker colors represent stronger relationships.

Focusing first on the eight domains from the SF-36, we see that Emotional Role is negatively associated with both math and ELA test growth, implying that higher growth on test scores are associated with lower ER scores, and therefore more serious emotional health concerns, although these associations are not statistically significant. Interestingly, higher teacher absences due to health concerns is not strongly correlated with math test growth, but is strongly negatively associated with ELA test score growth (indicating that more teacher absences are associated with lower ELA test score growth), although again, this association is not statistically significant. There are no strong associations between the nutrition measures and student education outcomes. The physical activity indicator is negatively associated with student attendance, indicating that teachers who are more physically active have students who attend fewer days of school, but this association is also not statistically significant.<sup>34</sup>

## Neighborhood Characteristics and School Climate

In research question 3—“What is the relationship between neighborhood characteristics and school climate?”—we examine the relationship between neighborhood characteristics around the

<sup>34</sup> We also estimated these correlations using Kendall’s tau, a measure more appropriate for a small sample. There were no substantive differences in the results, and none of these correlations coefficients were statistically significant.

schools (based on street segment audits) and school climate by summarizing the correlation coefficients of measures from the street segment audit and the City Schools–administered school climate survey, with all measures calculated at the school level.

For the street segment data (N = 156 street segments), we examine five measures that capture *features of the neighborhood* surrounding each of the schools (N = 18).<sup>35</sup> First, we include a measure for the proportion of the segments around the school where the sidewalk is of poor quality (Poor Quality Sidewalk), a measure for the proportion of the street segments with buildings that have bars on the windows (Bars on Windows), and a count for the number of vacant properties on the street segment (Vacant Property). We also include an index to measure Physical Disorder on the street segment, and a similar index to measure Social Disorder.<sup>36</sup>

We focus on the student responses to the school climate surveys in the analysis (N = 16, since survey responses are aggregated to the school level and two schools did not report student survey results), and include the nine dimensions that were collected in the student surveys administered by the school district to measure *school climate*: Creativity and the Arts Score,<sup>37</sup> Physical Environment Score,<sup>38</sup> Grit Score,<sup>39</sup> Learning Climate Score,<sup>40</sup> Family Involvement

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<sup>35</sup> We averaged the values of the street characteristic (e.g., vacant lot) variables across the audited segments surrounding the school to the school level. When the street characteristic collected by the audit was dichotomous (0 = no, 1 = yes), we created a measure for the proportion of segments surrounding the school where the characteristic was present. In the cases where the street characteristic was categorical, we created indicator variables to capture each level of the category, and calculated proportions. For example, the data collector rated the overall assessment of segment as: unattractive, neutral, or attractive so we created three indicator variables for the unattractive reports (0 = no, 1 = yes), neutral reports (0 = no, 1 = yes), and the attractive reports (0 = no, 1 = yes).

<sup>36</sup> The Physical Disorder index ranges from 0–24 and captures the frequency of times the segments around the school were indicated to have litter, such as broken beer bottles, cigarette butts, condoms, needles and syringes, and other litter, as well as abandoned cars, graffiti, and buildings with broken windows. The Social Disorder index measures the number of segments that have people drinking openly, people selling drugs, loud music, people smoking openly, etc. For both of these measures, a higher score indicates more disorder.

<sup>37</sup> Students have a chance to participate in music, art, dance or plays at the school.

<sup>38</sup> School building is clean, well lit, has satisfying food options, and is not often too hot or too cold.

<sup>39</sup> Student keeps working on homework that is hard, student feels they can finish homework every day, student feels they can pass all subjects in the school, and student keeps trying when they are taught something they do not understand.

<sup>40</sup> Students respect each other, students respect the teachers, teachers respect the students, there are fair consequences when students misbehave, and students feel like they belong at the school.

Score,<sup>41</sup> School Resources Score,<sup>42</sup> Safety Score,<sup>43</sup> Satisfaction with School Score,<sup>44</sup> and Overall Index Score.<sup>45</sup> School climate dimension scores range from 0–100, with higher numbers indicating more favorable school climate.

The measures analyzed in research question 3 are summarized in Table 4.7. On average, 11 percent of the street segments around the schools are of poor quality, and 45 percent have bars on the windows, although we note that there are schools where 100 percent of the buildings surrounding the school have bars on the windows. There are on average 8.4 vacant properties surrounding the schools. The Physical Disorder score is relatively high, with an average of 11 out of a possible 24, while the Social Disorder is quite low, with an average of 0.2 out of a possible high score of eight. On average, 12 percent of street segments were rated unattractive. Focusing on the school climate survey measures, we see that the study schools score quite low on the Physical Environment, Learning Environment, and Safety dimensions, but they perform better on the Satisfaction with School dimension.

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<sup>41</sup> When a student does something good or bad, the parents are informed.

<sup>42</sup> Students have the opportunity to take books home, teachers provide extra academic help to students who need it, students feel there is someone they can talk to at the school if they need it.

<sup>43</sup> Students feel safe at the school, students feel safe traveling to and from the school, fighting or bullying is not a problem at this school.

<sup>44</sup> Students feel they learn a lot at the school, students like their teachers, students like their classes, and students would stay at the school if given the opportunity.

<sup>45</sup> Average of all student responses.



**Table 4.7. Summary Statistics for Neighborhood Quality and School Climate Measures**

<b>Outcome</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>N</b>
<b>Neighborhood Quality Measures</b>					
Poor-Quality Sidewalk, Proportion of Segments Around School (Range 0–1)	0.11	0.18	0.00	0.57	18
Bars on Windows, Proportion of Segments Around School (Range 0–1)	0.45	0.41	0.00	1	18
Vacant Properties, Number of Segments Around School	8.44	8.58	0.00	26	18
Physical Disorder Index, Average of Segments Around School	11.43	4.07	4.80	21.11	18
Social Disorder Index, Average of Segments Around School	0.20	0.30	0.00	1.14	18
Segment Unattractive, Proportion of Segments Around School (Range 0–1)	0.12	0.17	0.00	0.56	18
<b>School Climate Measures</b>					
Creativity and the Arts Score (Range 0–100)	65.84	14.47	41.80	87.50	16
Physical Environment Score (Range 0–100)	50.97	7.96	40.20	65.10	16
Grit Score (Range 0–100)	77.73	5.78	68.00	87.10	16
Learning Climate Score (Range 0–100)	57.06	12.02	34.70	74.90	16
Family Involvement Score (Range 0–100)	72.51	7.88	63.50	89.30	16
School Resources Score (Range 0–100)	69.67	10.67	45.50	88.90	16
Safety Score (Range 0–100)	49.11	10.16	33.00	67.50	16
Satisfaction with School Score (Range 0–100)	71.00	11.27	49.30	87.30	16
Overall Index Score (Range 0–100)	62.14	9.01	46.20	76.60	16

Results from the correlational analyses are presented in Table 4.8. While there is a strong negative correlation between all measures of school climate and the Poor-Quality Sidewalk and Physical Disorder measures of neighborhood quality, with especially high correlations between it and the Grit Score and Physical Environment scores, these relationships are not statistically significant once we correct for multiple comparisons. Interestingly, the school climate measures are positively correlated with the Bars on Windows and Vacant Properties measures, but again, these relationships are not statistically significant. School quality is not strongly correlated with the Social Disorder measure, although there was not much variation in this measure of neighborhood quality in our sample. We also note that these results should be interpreted with caution, because the correlation analysis presented here relies on a sample of 16 schools for which both neighborhood quality and school climate measures were available.

**Table 4.8. Correlation Coefficients for Neighborhood Quality and School Climate Measures**

<b>School Climate Measure</b>	<b>Poor-Quality Sidewalk</b>	<b>Bars on Windows</b>	<b>Vacant Properties</b>	<b>Physical Disorder</b>	<b>Social Disorder</b>
Creativity and the Arts Score	-0.29	0.56	0.29	-0.10	-0.16
Physical Environment Score	-0.57	0.63	0.32	-0.48	-0.20
Grit Score	-0.57	0.43	0.20	-0.51	-0.44
Learning Climate Score	-0.37	0.38	0.11	-0.61	-0.34
Family Involvement Score	-0.59	0.64	0.33	-0.54	-0.23
School Resources Score	-0.37	0.28	0.02	-0.56	-0.54
Safety Score	-0.31	0.36	0.00	-0.66	-0.23
Satisfaction with School Score	-0.50	0.42	0.21	-0.48	-0.37
Overall Index Score	-0.48	0.48	0.18	-0.58	-0.35

NOTES: Green represents positive correlations, red represents negative correlations, and darker colors represent stronger relationships.

## 5. Conclusions and Future Work

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This report summarizes a unique collection of comprehensive data from students, faculty and staff, principals, physical school buildings and their neighborhoods, and education outcomes data (related to both teachers and students) that we acquired from City Schools prior to the school building revitalizations. With the detailed collection of these baseline data, we are well poised to ultimately examine the impact of the 21st Century School Building Program renovation and rebuilding effort. The primary goal of this report was to document the status of conditions that may be affected by the renovation, in both treatment schools that will eventually receive new school buildings, and in matched comparison schools that are not currently slated to receive a renovated school building. From physical and emotional health, physical activity, diet, perceived safety, to study habits, grit, academic self-efficacy, and school connectedness, we were able to collect baseline data prior to renovations.

In addition to describing the data sources, we analyzed three research questions in the report: associations between students' perceptions of school climate, student health and well-being, and student education outcomes; school staffs' perceptions of school climate, staff health and well-being, and their student's education outcomes; and neighborhood characteristics and students' perceptions of school climate. While the analyses we presented are exploratory and cannot be interpreted as causal, they do provide some initial insights into understanding the important pathways through which new school facilities may influence health, well-being, and students' academic achievement.

Our team found that students' and teachers' perceptions of school climate were correlated with measures of mental health in both populations, and that students' physical health and mental health are moderately correlated with education outcomes, in particular with thinking about dropping out of school. We found no statistically significant correlations between teacher physical and mental health and student education outcomes. We did find a strong negative relationship between teacher absences due to health and their contribution to ELA test score (although this effect is not statistically significant), which is a finding that is supported by other research in the education field (Clotfelter, Ladd, and Vigdor, 2007). Finally, we found strong relationships between our measures of neighborhood quality and students' assessment of the school climate, although none of these findings are statistically significant, likely because they are based on a sample of 16 schools. In general, although we were able to collect very detailed data on a large range of topics, we were limited by both sample size and the cross-sectional nature of our data in this report.

There are additional contributions made by the first phase of this project. First, our overall approach of collecting individual-level, school-level, and neighborhood-level data from different populations (e.g., students, faculty, principals) and modes (primary and secondary) was a unique

and resource intensive effort. Yet, collection of these data is critical since, all too often, collection of baseline data (from both intervention and comparison settings) is a missed opportunity. At the same time, the value of this data collection will only truly be realized after we collect the longitudinal follow-up data.

This data collection effort also contributes to the literature by establishing intra-class correlation coefficients (or ICCs) for both student and teacher measures of health and well-being at the school level. Researchers planning future studies with these types of data collection efforts will be able to take advantage of this information when designing their own studies, especially in conducting power analyses to calculate the required sample size needed for their studies.

Lastly, the collection of administrative data from students on their test scores, retention and promotion, as well as from faculty and staff on retention, teaching assignments, and evaluation score is unique to this study. Our analysis can assist stakeholders in the field by providing a comprehensive understanding of student, teacher and school health and wellness in an urban school district.

There are limitations to our work. First, the collection of health and well-being data from students in City Schools was only possible with active parent consent. Principals first had to agree to the survey data collection for their students, and then parents or caretakers had to sign consent forms that allowed their child to participate in the survey. The process of collecting active parent consent was time consuming and difficult in certain schools, with an overall consent rate of 11 percent, resulting in a relatively small sample size for the student surveys. Similarly, we relied on teachers' willingness to complete the online survey; we had 411 teachers in the treatment and comparison schools complete the survey, for an overall completion rate of 61 percent. While the administrative data from the district was from all students, teachers and for the entire district, the sample sizes for the health and well-being measures are more limited, which restricts the generalizability of our findings.

We plan to return to City Schools and conduct a second round of data collection after the new buildings have been in place for at least one year. At that time, we hope to then be well positioned to comprehensively analyze the impact of the new school buildings on student, staff, school, and neighborhood outcomes to help City Schools and other school districts understand the benefits of school infrastructure investments.

# Appendix A. Elementary and High School Student Survey

Questionnaire	Survey Questions	Response Options
<b>GENERAL HEALTH</b>		
ES and HS Survey	I could do sports and exercise that other kids my age could do	With no trouble; With a little trouble; With some trouble; With a lot of trouble; Not able to do
ES and HS Survey	I could get up from the floor	With no trouble; With a little trouble; With some trouble; With a lot of trouble; Not able to do
ES and HS Survey	I could walk up stairs without holding on to anything	With no trouble; With a little trouble; With some trouble; With a lot of trouble; Not able to do
ES and HS Survey	I have been physically able to do the activities I enjoy most	With no trouble; With a little trouble; With some trouble; With a lot of trouble; Not able to do
ES and HS Survey	I felt like something awful might happen	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I felt nervous	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I felt worried	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I worried when I was at home	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I felt everything in my life went wrong	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I felt lonely	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I felt sad	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	It was hard for me to have fun	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	Being tired made it hard for me to keep up with my schoolwork	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I got tired easily	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I was too tired to do sports or exercise	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I was too tired to enjoy the things I like to do	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I felt accepted by other kids my age	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I was able to count on my friends	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	My friends and I helped each other out	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	Other kids wanted to be my friend	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I get a lot of headaches, stomach-aches and sickness.	Not true; Somewhat true; Certainly true
ES and HS Survey	I worry a lot	Not true; Somewhat true; Certainly true
ES and HS Survey	I am often unhappy, down hearted or tearful	Not true; Somewhat true; Certainly true
ES and HS Survey	I am nervous in new situations	Not true; Somewhat true; Certainly true
ES and HS Survey	I have many fears, I am easily scared	Not true; Somewhat true; Certainly true
ES and HS Survey	I get very angry and often lose my temper	Not true; Somewhat true; Certainly true
ES and HS Survey	I usually do as I am told	Not true; Somewhat true; Certainly true
ES and HS Survey	I fight a lot	Not true; Somewhat true; Certainly true
ES and HS Survey	I am often accused of lying or cheating	Not true; Somewhat true; Certainly true
ES and HS Survey	I take things that are not mine	Not true; Somewhat true; Certainly true
<b>OTHER GENERAL HEALTH QUESTIONS</b>		
ES and HS Survey	During the past month, how would you rate your overall sleep quality?	Very bad, Bad, neither good nor bad, good, very good
ES and HS Survey	In the past month, what time did you usually go to bed on school days?	time between 12am to 11pm
ES and HS Survey	In the past month, what time did you usually wake up on school days?	time between 12am to 11pm
ES and HS Survey	In the past month, what time did you usually go to bed on the weekend?	time between 12am to 11pm
ES and HS Survey	In the past month, what time did you usually wake up on the weekend?	time between 12am to 11pm
ES and HS Survey	In the past school year, have you used the School Based Health Center at your school to see a doctor?	yes; no
ES and HS Survey	In the past school year, have you had a vision and hearing screening at your school?	yes; no
ES and HS Survey	In the past school year, have you seen a dentist for a check-up, exam, teeth cleaning, or other dental work at your school?	yes; no
<b>ABSENCES DUE TO HEALTH</b>		
ES and HS Survey	During the past 12 months, about how many days of school did you miss to go to the doctor or hospital?	number of days
ES and HS Survey	During the past 12 months, about how many days of school did you miss because you were feeling ill?	number of days

NUTRITION		
ES and HS Survey	During the past year, how often did you drink orange juice, apple juice and other 100% juices (1 glass)	Never/less than once per month; 1-3 glasses per month; 1 glass per week; 2-6 glasses per week; 1 glass per day; More than 1 glass per day
ES and HS Survey	During the past year, how often did you drink flavored waters or sports drinks (such as Propel, Snapple or Gatorade) (1 bottle)	Never/less than once per month; 1-3 bottles per month; 1 bottle per week; 2-4 bottles per week; 5-6 bottles per week; 1 bottle per day; 2 bottles per day; 3 or more bottles per day
ES and HS Survey	During the past year, how often did you drink regular soda or pop (include all kinds such as Coke, Pepsi, 7-Up, Sprite, root beer) (1 can or bottle)	Never/less than once per month; 1-3 cans or bottles per month; 1 can or bottle per week; 2-4 cans or bottles per week; 5-6 cans or bottles per week; 1 can or bottle per day; 2 cans or bottles per day; 3 or more cans or bottles per day
ES and HS Survey	During the past year, how often did you drink water (bottled, tap, or carbonated) (1 glass)	Never/less than once per month; 1-3 glasses per month; 1 glass per week; 2-4 glasses per week; 5-6 glasses per week; 1 glass per day; 2 glasses per day; 3 or more glasses per day
ES and HS Survey	During the past year, how often did you eat regular potato chips, tortilla chips, corn chips and puffs or other salty snacks (such as all flavors of Ruffles, Doritos, Cheetos, Ritz Bitz, Goldfish crackers) (1 bag)	Never/less than 1 per month; 1-3 small bags per month; One small bag per week; 2-6 small bags per week; 1 or more small bags per day
ES and HS Survey	During the past year, how often did you eat candy bars like Milky Way, Snickers (1 bar)?	Never/less than 1 per month; 1-3 candy bars per month; 1 candy bar per week; 2-6 candy bars per week; 1 or more candy bars per day
ES and HS Survey	During the past year, how often did you eat candy without chocolate like Skittles (1 packet)?	Never/less than 1 packet per month; 1-3 packets per month; One packet per week; 2-6 packets per week; 1 or more packets per day
ES and HS Survey	How many times in the past 7 days did you eat a serving of vegetables such as green salad, peas, green beans, corn? (do not count fried potatoes or French fries) (1 serving)	Never; 1-2 servings/week; 2-4 servings/week; 5-6 servings/week; 1 serving per day; 2-3 servings per day; 4+ servings per day
ES and HS Survey	How many times in the past 7 days did you eat a serving of fruit such as a banana, apple or grapes? (do not count juices) (1 serving)	Never; 1-2 servings/week; 2-4 servings/week; 5-6 servings/week; 1 serving per day; 2-3 servings per day; 4+ servings per day
PHYSICAL ACTIVITY		
ES and HS Survey	On average, how many days a week do you walk to or from school?	Never; 1-2; 3-4; I walk every day
ES and HS Survey	On average, how many days a week do you bike to or from school?	Never; 1-2; 3-4; I walk every day
ES and HS Survey	On an average school day, how many hours do you watch TV, including videos and DVDs?	I do not watch TV on an average school day; Less than 1 hour per day; 1 hour per day; 2 hours per day; 3 hours per day; 4 hours per day; 5 or more hours per day
ES and HS Survey	On an average school day, how many hours do you play video games or use a computer for fun?	I do not watch TV on an average school day; Less than 1 hour per day; 1 hour per day; 2 hours per day; 3 hours per day; 4 hours per day; 5 or more hours per day
ES and HS Survey	In an average week when you are in school on how many days do you go to physical education (PE) classes?	0 days; 1 day; 2 days; 3 days; 4 days; 5 days
ES and HS Survey	During an average PE class how many minutes do you spend actually exercising or playing sports?	I do not take PE; Less than 10 minutes; 10-20 minutes; 21-30 minutes; 31-40 minutes; 41-50 minutes; 51-60 minutes; More than 60 minutes
ES and HS Survey	In the last 7 days, on how many days did you do sports, dance, or play games in which you were very active? (Check one only.)	None; 1 day last week; 2-3 days last week; 4 days last week; 5 days last week; 6 days last week; 7 days last week

Questionnaire	Survey Questions	Response Options
<b>SAFETY</b>		
ES and HS Survey	How safe do you feel outside around the school	Not Safe; Somewhat Safe; Mostly Safe; Very Safe
ES and HS Survey	How safe do you feel traveling between home and school	Not Safe; Somewhat Safe; Mostly Safe; Very Safe
ES and HS Survey	How safe do you feel in the hallways and bathrooms of the school	Not Safe; Somewhat Safe; Mostly Safe; Very Safe
ES and HS Survey	How safe do you feel in your classes	Not Safe; Somewhat Safe; Mostly Safe; Very Safe
ES and HS Survey	I worry about crime and violence in school	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	I sometimes stay home because I don't feel safe at school	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Have you ever been in a physical fight [on school property]?	Yes; No
ES and HS Survey	Have you ever been in a physical fight [on school property] in which you were hurt and had to be treated by a doctor or nurse?	Yes; No
ES and HS Survey	Have you ever been bullied on school property?	Yes; No
ES and HS Survey	Have you ever been bullied online? (Count being bullied though email, instant messaging, websites, apps, or texting.)	Yes; No
<b>PREVALENCE OF ASTHMA</b>		
ES and HS Survey	Have you ever been told by a doctor or other health professional that you have asthma?	Yes; No
ES and HS Survey	During the past 12 months, about how many days of school did you miss because of your asthma	number of days
ES and HS Survey	I felt scared that I might have trouble breathing because of my asthma	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	My chest felt tight because of my asthma	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I felt wheezy because of my asthma	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I had trouble breathing because of my asthma.	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	I had trouble sleeping because of my asthma.	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	It was hard for me to play sports or exercise because of my asthma	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	It was hard to take a deep breath because of my asthma	Never; Almost never; Sometimes; Often; Almost Always
ES and HS Survey	My asthma bothered me	Never; Almost never; Sometimes; Often; Almost Always

**NON-ACHIEVEMENT OUTCOMES**

ES and HS Survey	I set aside time to do my homework and study	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I try to do well on my schoolwork even when it isn't interesting to me	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	If I need to study, I don't go out with my friends	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I always study for tests	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I keep track of my long-term assignments so I know when to turn them in	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I manage my time well enough to get all my work done	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I can keep my schoolwork and personal life organized	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I set goals for my performance in classes	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I have a system for organizing my school work	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I finish whatever I begin.	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I am a hard worker.	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I continue steadily toward my goals.	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I don't give up easily.	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I come to class prepared	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I pay attention and resist distraction in class	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I remember and follow directions	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I get to work right away, instead of waiting until the last minute	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I allow others to speak without interruption	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I am polite to adults and classmates	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I can control my temper	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I can wait in line patiently	None of the time; A lot of the time; A little of the time; Most of the time; All of the time
ES Survey only	I sit still when I'm supposed to	None of the time; A lot of the time; A little of the time; Most of the time; All of the time
ES Survey only	I can wait for my turn to talk in class	None of the time; A lot of the time; A little of the time; Most of the time; All of the time
ES Survey only	I can easily calm down when excited	None of the time; A lot of the time; A little of the time; Most of the time; All of the time
ES Survey only	I calm down quickly when I get upset	None of the time; A lot of the time; A little of the time; Most of the time; All of the time
ES Survey only	I can do even the hardest homework if I try	None of the time; A lot of the time; A little of the time; Most of the time; All of the time
ES Survey only	I can learn the things taught in school	None of the time; A lot of the time; A little of the time; Most of the time; All of the time
ES and HS Survey	I can do even the hardest homework if I try	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I can learn the things taught in school	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I can figure out difficult homework	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	If I solve a problem wrong the first time, I just keep trying until I get it right	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	When I do badly on a test, I work harder the next time	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I always work hard to complete my school work	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I do my school work because I like to learn new things	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I do my school work because I am interested in it	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
ES and HS Survey	I do my school work because I enjoy it	Not like me at all; Not much like me; Somewhat like me; Mostly like me; Very much like me
HS Survey only	I often count the minutes until class ends	Strongly Disagree; Disagree; Agree; Strongly Agree
HS Survey only	Sometimes I get so interested in my work I don't want to stop.	Strongly Disagree; Disagree; Agree; Strongly Agree
HS Survey only	I usually look forward to class.	Strongly Disagree; Disagree; Agree; Strongly Agree
HS Survey only	I'm usually bored in class.	Strongly Disagree; Disagree; Agree; Strongly Agree
HS Survey only	The topics we are studying are interesting and challenging.	Strongly Disagree; Disagree; Agree; Strongly Agree
HS Survey only	I work hard to do my best in class.	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	I enjoy being at school	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Doing well in school will help me in the future	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	I get bored in school a lot	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	I do well in school	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	I do a lot of things in school to prepare for my future	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	I feel good about myself when I am at school	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Doing well in school is important to me	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	If you get good grades in school most kids won't like you	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	My classes at school help me learn things I will need to know later in life	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Staying in school is important for my future	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	I feel some pressure from my friends not to do too well in school	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Getting an education is the key to success in life	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Being in school helps me to become the person I'd like to be	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Finishing high school is not important for what I want to do with my life	Strongly Disagree; Disagree; Agree; Strongly Agree
ES and HS Survey	Are you planning to go to college?	Yes; No
HS Survey only	Have you ever thought seriously about dropping out of school?	Yes; No
HS Survey only	Have you ever stopped going to classes for a while because you were seriously thinking about dropping out of school?	Yes; No



Questionnaire	Survey Questions	Response Options
<b>SCHOOL BUILDING QUALITY</b>		
ES and HS Survey	How clean are the bathrooms in your school?	Not at all clean; Not very clean, Somewhat clean, Very clean
ES and HS Survey	How comfortable is the temperature in your classroom generally?	Not comfortable at all; Not very comfortable; Somewhat comfortable; Completely comfortable
ES and HS Survey	How would you rate the air quality in your classroom?	Poor; Fair; Good; Excellent
ES and HS Survey	How would you rate the lighting in your classroom?	Poor; Fair; Good; Excellent
ES and HS Survey	Please give an overall grade to the conditions of your school building	A; B; C; D; F

# Appendix B. School Staff Survey

Survey Questions	Responses
Which of the following best describes your position as a teacher of K-12 students this school year What subject areas are you teaching	1) Regular education teacher 2) Special education teacher 3) other kind of teacher 4) teacher's aide 5) principal 1) English/language arts/ reading/ writing 2) Mathematics 3) Science 4) Social Studies 5) Foreign language 6) Visual or performing arts 7) Physical education/health education 8) Career/technical education 9) Other subject area
Which one of the following groups of teachers do you belong to	1) tested subject, tested grade 2) grade 3-12 subject not linkable to standard based assessments 3) grade K-2 teacher
Which of the following best describes your teaching arrangement this year	1) I teach a single group of students all or most of the day in multiple subject areas. (Traditional elementary arrangement; sometimes called "self-contained.") 2) I teach several classes of different students during the day in a particular subject (for example, math) or perhaps two subjects (for example, you teach some math classes and some science classes). (Traditional secondary arrangement; sometimes called "subject-specific" or "departmentalized"; at elementary level, sometimes called "subject matter specialist." Also typical arrangement for physical education, art, music, etc.) 3) I mainly teach selected students released from (or in) their regular classes in specific skills or to address specific needs (for example, special education, reading, English as a second language, gifted and talented.) (Sometimes called "pull out", "resource," or "push in" instruction.) 4) I am one of two or more teachers who are jointly responsible for teaching the same subject to a group of students (for example, in the same classroom), all or most of the time and/or in a majority of classes. (Sometimes called "co-teaching" or "job share.") 5) Other (please describe):
Including this school year, how many years have you been working in the school district, total, regardless of location	number of years
Including this school year, how many years have you been working in your current school	number of years
Including this school year, how many years have you been working in your current school and your current position	number of years
Which of the following best describes your current position teaching bilingual students this school year	1) Spanish bilingual teacher 2) Native American bilingual teacher 3) Other bilingual teacher 4) Not a bilingual teacher
I usually look forward to work each day at this school	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I wouldn't want to work in any other school	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I feel loyal to this school	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I would recommend this school to parents seeking a place for their child	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I would recommend Baltimore City Public Schools as a great place to work to my friends	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
If I were offered a comparable teaching position with similar pay and benefits at another district, I would stay with Baltimore City Public Schools	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
My school leader encourages me to come up with new and better ways of doing things	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I am satisfied with the recognition I receive for doing my job	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
The people I work with at my school cooperate to get the job done	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I have access to resources (materials, equipment, technology, etc.) I need in order to effectively teach my students	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
My job allows me the opportunity to complete the work I start	1) Not at all true 2) A little true 3) Mostly true 4) Completely true
I routinely receive constructive feedback on my job performance	1) Not at all true 2) A little true 3) Mostly true 4) Completely true
My job gives me the opportunity to exercise a variety of skills	1) Not at all true 2) A little true 3) Mostly true 4) Completely true
My job provides the opportunity for independent thought and action	1) Not at all true 2) A little true 3) Mostly true 4) Completely true
My work is very significant in the broader scheme of things	1) Not at all true 2) A little true 3) Mostly true 4) Completely true
I plan to teach next year	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I plan to teach in Baltimore Public City Schools next year	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I plan to teach in this school next year	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
How adequate is the size of your room(s) for using the most effective teaching activities?	1) Too large, 2) Too Small, 3) Right size
In the last five years, have you ever taught classes in spaces that were not designed as classrooms?	yes; no
Is there space in the school for you and your colleagues to plan and to work together on professional matters?	yes; no
If you answered yes to the last question, how adequate is the space?	1) Very adequate 2) Somewhat adequate 3) somewhat inadequate 4) Very inadequate
How adequate are the lunchroom facilities that you and your colleagues have access to?	1) Very adequate 2) Somewhat adequate 3) somewhat inadequate 4) Very inadequate
Do you have access to computers in your school to do your work?	yes; no
If you have access to computers in your school, how adequate are they?	1) Very adequate 2) Somewhat adequate 3) somewhat inadequate 4) Very inadequate
Have poor facility conditions ever made you think about changing schools?	yes; no

This school year, how often have you observed another teacher's classroom to offer feedback	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
This school year, how often have you observed another teacher's classroom to get ideas for your own instruction	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
This school year, how often have you gone over student assessment data with other teachers to make instructional decisions	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
This school year, how often have you worked with other teachers to develop materials or activities for particular classes	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
This school year, how often have you worked on instructional strategies with other teachers	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
I help maintain discipline in the entire school, not just my classroom	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I take responsibility for improving the school	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I feel responsible to help each other do their best	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I feel responsible that all students learn	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I feel responsible for helping students to develop self control	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
I feel responsible when the students in this school fail	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
This school year, how often have you had conversations with colleagues about what helps students learn the best	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
This school year, how often have you had conversations with colleagues about the development of new curriculum	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
This school year, how often have you had conversations with colleagues about the goals of this school	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
This school year, how often have you had conversations with colleagues about managing classroom behavior	1) Never 2) Once or twice 3) 3-9 times 4) 10 or more times
Teachers in this school trust each other	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
It's Ok in this school to discuss feelings, worries, and frustrations with other teachers	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
Teachers respect other teachers who take lead in school improvement efforts	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree
Teachers at this school respect those colleagues who are experts at their craft	1) Strongly disagree 2) Disagree 3) Agree 4) Strongly agree

Survey Questions

Responses

In general, would you say your health is Compared to one year ago, how would you rate your health in general now?	1)Excellent 2)Very 3)Good 4)Fair 5)Poor 1) Much better than a year ago 2) Somewhat better than a year ago 3) About the same 4) Somewhat worse than a year ago 5) Much worse than a year ago
Does your health limit you in vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in moderate activities in lifting or carrying groceries	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in climbing several flights of stairs	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in climbing one flight of stairs	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in bending, kneeling, or stooping	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in walking more than a mile	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in walking several blocks	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in walking one block	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
Does your health limit you in bathing or dressing yourself	1) Yes, limited a lot 2) Yes, limited a little 3) No, not limited at all
During the past 4 weeks have you had to cut down the amount of time you spent on work or other activities as a result of your physical health	1) Yes 2) No
During the past 4 weeks have you accomplished less than you would like as a result of your physical health	1) Yes 2) No
During the past 4 weeks were you limited in the kind of work or activities you participated in as a result of your physical health	1) Yes 2) No
During the past 4 weeks have you had difficulty performing work or other activities (for example, it took extra effort) as a result of your physical health	1) Yes 2) No
During the past 4 weeks have you had to cut down the amount of time you spent on work or other activities as a result of your emotional health	1) Yes 2) No
During the past 4 weeks have you accomplished less than you would like as a result of your emotional health	1) Yes 2) No
During the past 4 weeks have you not done work or activities as carefully as usual as a result of your emotional health	1) Yes 2) No
During the past 4 weeks, to what extent has your physical or emotional health problems interfered with your normal social activities with family, friends, neighbors, or groups	1) Not at all 2) Slightly 3) Moderately 4) Quite a bit 5) Extremely
How much bodily pain have you had during the past 4 weeks	1) None 2) Very Mild 3) Mild 4) Moderate 5) Severe 6) Very Severe
During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?	1)Not at all 2)A little bit 3)Moderately 4)Quite a bit 5)Extremely
How much of the time during the past 4 weeks did you feel full of pep	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks did have you been a very nervous person	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks have you felt so down in the dumps that nothing could cheer you up	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks have you felt calm and peaceful	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks did you have a lot of energy	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks have you felt downhearted and blue	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks did you feel worn out	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks have you been a happy person	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
How much of the time during the past 4 weeks did you feel tired	1) All of the time 2) Most of the time 3) A good bit of the time 4) Some of the time 5) A little of the time 6) None of the time
During the past 4 weeks, how much of the time has your physical or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?	1) All of the time 2) Most of the time 3) Some of the time 4) A little of the time 5) None of the time
I seem to get sick a little easier than other people	1) Definitely true 2) Mostly true 3) Don't know 4) Mostly false 5) Definitely false
I am as healthy as anybody I know	1) Definitely true 2) Mostly true 3) Don't know 4) Mostly false 5) Definitely false
I expect my health to get worse	1) Definitely true 2) Mostly true 3) Don't know 4) Mostly false 5) Definitely false
My health is excellent	1) Definitely true 2) Mostly true 3) Don't know 4) Mostly false 5) Definitely false

During the past school year, about how many days did you miss work because of your own illness or injury (do not include maternity leave)?	number of days
How many times in the past 7 days did you drink orange juice, apple juice or other 100% juices	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
How many times in the past 7 days did you drink flavored waters or sports drinks (such as Propel, Snapple or	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
How many times in the past 7 days did you drink regular soda or pop (include all kinds such as Coke, Pepsi, 7-Up,	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
How many times in the past 7 days did you drink water (bottled, tap, or carbonated)	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
How many times in the past 7 days did you eat regular potato chips, tortilla chips, corn chips and puffs or other salty	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
How many times in the past 7 days did you eat candy, cookies, or deserts (such as chocolate, pop tarts)	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
How many times in the past 7 days did you eat a serving of vegetables such as green salad, peas, green beans, corn?	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
How many times in the past 7 days did you eat a serving of fruit such as a banana, apple or grapes? (do not count	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
In general, how healthy is your overall diet? Would you say (excellent, etc.)	1) Never or less than 1/week 2) Once a week 3) 2-4 times a week 4) 5-6 times a week 5) Once a day 6) 2-3 per
On a typical school day, do you eat food during the day prepared at the school?	Yes; No
On a typical school day, do you eat food during the day prepared outside of the school?	Yes; No
On a typical school day when you eat meals prepared off school campus where does the food come from?	1) home 2) convenience store 3) sit-down restaurant 4) fast food 5) other ____
On a typical school day when you eat meal(s) prepared off school campus which of the following do you usually eat	1) fast food (e.g., burger, fries, pizza) 2) ready-to-eat packaged meal (e.g., Hot Pockets, Smart Ones) 3) deli
On a typical school day do you eat with other teachers/staff?	Yes; No
During the past 7 days, how many meals did you get that were prepared away from home in places such as	1) 0 2) 1 3) 2 4) 3 5) 4 6) 5 7) 6 8) 7 9) 8+
How many of those meals did you get from a fast-food or pizza place?	1) 0 2) 1 3) 2 4) 3 5) 4 6) 5 7) 6 8) 7 9) 8+
During the past 30 days, how often did you eat "ready to eat" foods from the grocery store? Please do not include	value 1-60, never
During the past 30 days, how often did you eat frozen meals or frozen pizzas?	value 1-60, never
How many times a week do you usually do 20 minutes or more of vigorous-intensity physical activity that make you sweat or puff and pant - such as heavy lifting, digging, jogging, aerobics, basketball, or fast cycling?	1) More than 5 times a week 2) 3-5 times a week 3) 1-2 times a week 4) None
How many times a week do you usually do 30 minutes of more walking - such as walking from place to place for exercise, leisure or recreation?	1) More than 5 times a week 2) 3-5 times a week 3) 1-2 times a week 4) None
How many times a week do you usually do 30 minutes or more of moderate-intensity physical activity that increases your heart rate or makes you breathe harder than normal - such as carrying light loads, bicycling at a regular pace, gardening, or line dancing?	1) More than 5 times a week 2) 3-5 times a week 3) 1-2 times a week 4) None
Have you smoked at least 100 cigarettes in your entire life?	Yes; No
Do you now smoke cigarettes?	Yes; No
In the past 12 months, how often did you drink any type of alcoholic beverage?	Unit of quantity, per week, month or year
In the past 12 months, on those days that you drank alcoholic beverages, on the average, how many drinks did you have? (By a drink, I mean a 12 oz. beer, a 5 oz. glass of wine, or one and a half ounces of liquor.)	number of drinks
During the past month, when have you usually gone to bed at night?	time of day
During the past month, how long (in minutes) has it usually take you to fall asleep each night?	minutes
During the past month, when have you usually gotten up in the morning?	time of day
During the past month, how many hours of <i>actual sleep</i> did you get at night? (This may be different than the number of hours you spend in bed)	hours



EDUCATION

SCHOOL ID:

**Baltimore City Schools  
21<sup>st</sup> Century Schools Revitalization Evaluation**

*Before we begin our discussion, please take ten minutes to complete the following questionnaire. Please use **X** for your responses.*

- 1. The School Wellness Policy provision of the National School Lunch Act was passed in 2004. Has your school district or your school established a school wellness policy that addresses student nutrition and/or physical activity issues?**

(Please check one):

- YES  
 NO  
 Don't know

- 2. Does your school have a nutrition education curriculum?**

(Please check one):

- YES  
 NO [Skip to Q3]  
 Don't know [Skip to Q3]

2A. If **YES**, does your school have one for every grade?

(Please check one):

- YES  
 NO  
 Don't know

2B. If **YES**, is the curriculum its own class or interwoven into other subjects?

(Please check one):

- YES  
 NO

Don't know

2C. If **YES**, how many hours (or units) of nutrition education do the students receive in every grade? (Fill in blank): \_\_\_\_\_units/hrs.

**3. To what extent are teachers encouraged to be role models exhibiting healthy behaviors?**

3A. Are staff encouraged to eat the school meals?

(Please check one):

YES (How? \_\_\_\_\_)

NO

Don't know

3B. Are staff encouraged to drink water?

(Please check one):

YES (How? \_\_\_\_\_)

NO

Don't know

3C. Are staff allowed to drink soda in front of the students?

(Please check one):

YES

NO

Don't know

3D. Is it possible for staff to sit and eat breakfast and/or lunch from the school meals program with students?

(Please check one):

YES

NO

Don't know

3E. Are there any exercise clubs available to the staff (e.g., walking club)?

(Please check one):

YES

NO

Don't know

3F. Do staff have access to the equipment in the gym for physical activity?

(Please check one):

- YES
- NO
- Don't know

**4. Does a health advisory committee exist at this school? (Note: the group may be called another name such as: *school health council* or *school wellness team*)**

(Please check one):

- YES
- NO [Skip to Q5]
- Don't know [Skip to Q5]

**4A. If YES, how often does the committee meet?**

(Please check one):

- Weekly
- Biweekly
- Monthly
- Quarterly
- Once a semester
- As needed
- Other: \_\_\_\_\_

**4B. If YES, what kind of activities or policies has it developed, sponsored, or promoted this past school year?**

(Check all that apply):

- Identified student health needs based on a review of relevant data
- Recommended new or revised health and safety policies and activities to school administrators or the school improvement team.
- Sought funding or leveraged resources to support health and safety priorities for students and staff
- Communicated the importance of health and safety policies and activities to district administrators, school administrators, parent-teacher groups, or community members
- Reviewed health-related curricula or instructional materials
- Assessed the availability of physical activity opportunities for students
- Developed a written plan for implementing a Comprehensive School Physical Activity Program (a multi-component approach that provides opportunities for students to be physically active before, during, and after school)
- Other: \_\_\_\_\_



4C. If **YES**, who is on the committee?

(Check all that apply):

- Administrative staff
- Teaching staff
- Parents/ guardians of enrolled schoolchildren
- Non-parent/ guardian volunteers
- External, professional consultants
- Members of neighborhood non-profit organizations
- Other: \_\_\_\_\_

5. Do food celebrations (e.g., birthday parties, holiday parties) occur during the school day?

(Please check one):

- YES
- NO [Skip to Q6]
- Don't know [Skip to Q6]

5A. If **YES**, are any foods and beverages restricted?

(Please check one):

- YES (which ones? \_\_\_\_\_)
- NO
- Don't know

5B. If **YES**, do celebrations occur in every grade?

(Please check one):

- YES
- NO (which ones? \_\_\_\_\_)
- Don't know

5C. If **YES**, how often do the celebrations occur?

(Please check one):

- There is no restriction (i.e., any time a student has a birthday or the teacher wants to offer a celebration)
- Once a month only
- Once a semester only
- Other scheduling restriction: \_\_\_\_\_

**6. Do staff use food and/or beverages as a reward for academic performance or good behavior?**

(Please check one):

- YES
- NO
- Don't know

**7. Does the school participate in any types of fundraisers that involve selling food and/or beverages?**

(Please check one):

- YES
- NO [Skip to Q 8]
- Don't know [Skip to Q 8]

**7A. If YES, does your school or school district have any policies regarding the nutritional quality of items sold to students for fundraisers?**

(Please check one):

- YES
- NO
- Don't know

**7B. If YES, which types of restrictions do you have?**

(Check all that apply):

- No soft drinks allowed for fundraisers
- No food products
- No Foods of Minimal Nutritional Value (soft drinks, candy, and gum)
- Only healthy foods allowed
- Follow state or district wellness guidelines
- Other restrictions—please specify: \_\_\_\_\_
- No restrictions

**7C. If YES, does the District provide you with a list of approved non-food or healthy food fundraising activities?**

(Please check one):

- YES
- NO
- Don't know

**8. Does the school encourage promotion of physical activity during or as fundraisers (e.g., walk-a-thons)**

(Please check one):

- YES
- NO
- Don't know

**9. Body mass index (BMI) is a measure of overweight based on height and weight. Does your school measure students' BMI?**

(Please check one):

- YES
- NO [Skip to Q10]
- Don't know [Skip to Q10]

**9A. If YES, are parents or guardians provided the BMI information?**

(Please check one):

- YES
- NO
- Don't know

**10. Are outside organizations and/or individuals allowed to use any school grounds or indoor facilities for physical activity or sports programs outside of school hours?**

(Check all that apply):

	NO	YES, organizations	YES, individuals
<b>Indoor</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Outdoor</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**10A. If outside organizations use any school grounds or indoor facilities for physical activity or sports programs, please indicate which organizations:**

(Check all that apply):

- School-sponsored or school-affiliated groups
- YMCA / YWCA
- Boys and Girls Clubs of America
- Athletic organizations or other recreation programs (e.g., soccer or little league)
- Parks and Recreation department
- Other—please specify: \_\_\_\_\_

**11. Some schools offer activity breaks during school hours. Does your school provide students opportunities to be physically active during the school day, other than in P.E.?**

- YES (briefly describe: \_\_\_\_\_)
- NO [Skip to Q12]
- Don't know [Skip to Q12]

11A. If YES, are regular physical activity breaks provided for every grade?

- YES
- NO (If not, for which grade(s) are regular physical activity breaks provided? \_\_\_\_\_)
- Don't know

**FOR THE NEXT TWO QUESTIONS, PLEASE CIRCLE ONE NUMBER ON EACH LINE**

**12. To what extent are you concerned about students in your school....**

	Not at all	A little	Somewhat	A lot
Being overweight?	1	2	3	4
Consuming more healthy foods than they are now?	1	2	3	4
Getting more exercise and physical activity than they do now?	1	2	3	4

**13. In your opinion, to what extent...**

	Not at all	A little	Somewhat	A lot
Has your <b>school district</b> made a serious/real effort to promote healthy eating and drinking habits among students?	1	2	3	4
Has your <b>school</b> made a serious/real effort to promote healthy eating and drinking habits among students?	1	2	3	4
Has your <b>school district</b> made a serious/real effort to promote increased physical activity among students?	1	2	3	4
Has your <b>school</b> made a serious/real effort to promote increased physical activity among students?	1	2	3	4
Should schools play a role in addressing the problem of childhood obesity?	1	2	3	4

*You are done. THANK YOU!*

*Thinking about the answers you just provided, I'd like to discuss the health and physical activity policies at your school in more detail.*

## **POLICIES AROUND HEALTH AND PHYSICAL ACTIVITY**

- What, if any, types of activities are currently underway at your school, or were this past school year, to promote healthier eating and drinking practices among students?

*Interviewee, check for:*

- *Nutrition education*
- *Physical activity*
- *Food and beverage offerings made available to students*
- *Other school-based activities designed to promote health*
- Are there sports teams at the school?
  - What type of teams?
  - Do teams have designated space on campus where they are able to practice? How are decisions made about allocation of space for student use?
- Does the school currently provide any programming related to health and nutrition? If so, describe this work.
  - Have any community partnerships been created to support this work? If so, with what organizations? What type of assistance do they provide?

## **USE OF GREEN SPACE**

- Is there any green space available in or around your building? (*Allow interviewee to describe what they define as "green space"*)
- How is this space used? (*PROBE: for classroom instruction, as part of physical education class, during students' recess/free time, after school?*)
- Is there an outdoor recreational area for student/community use?
  - If so, what is this space generally used for?
  - What groups of students or community members use this space most frequently?
  - Is there a process for signing up to use the area?
  - How secure would you say this space is?

## **USE OF BUILDING AS A RESOURCE**

- Do your students have opportunities for community service with external organizations in this school?
- Are community members allowed to utilize the building for non-school related events?
  - If so, could you describe some of the instances community members have used the building?
  - If so, describe how this space is allocated amongst community groups?
  - Which organizations have access to the building/ currently utilize the community space?
- Are there any local groups you are particularly interested in working with that you don't collaborate with currently?
  - If so, what groups and what value do you imagine they will bring to the school community?
- What type of health-related services are offered to students on school grounds/ in the school building? (i.e. dental, medical, mental health, immunizations)
  - What organizations are responsible for doing this work?
  - How many students use these health services?
  - Are there services you intend on providing for students in the future that you currently don't?
- Is there a school pantry program this school?
  - If so, can you describe that?
  - Who staffs this program?
  - How many of the students use these services?
  - How do you advertise the program to students and the larger community?

## **VOLUNTEERS AND OUTSIDE PARTNERS**

- What sorts of partnerships do you have with area organizations (i.e. volunteer organizations, community groups, social organizations, churches, businesses) to provide extracurricular opportunities for students?
  - How would you describe your level of satisfaction with these partnerships?
- Are there any groups you currently work with that could have a more productive relationship with the school? If yes, what could change about these partnerships to make them more effective?
- What roles if any do community volunteers play in supporting the school?
  - Describe the process for volunteer recruitment.

- Is there a process in place for checking potential volunteers in order to ensure student safety?

### **CURRICULUM AND STEM INTEGRATION**

- How does the school currently integrate STEM education into the curriculum?
  - Who is tasked with developing STEM content? Describe the process used for building a STEM education curriculum at your school.
- What facilities in the building do you use for STEM education?
- What types of challenges *in the facilities* do you have, if any, related to developing STEM programming or curriculum for your students?

### **CURRENT CONDITION OF THIS SCHOOL**

- How would you describe the current condition of your school building? And its surroundings?
- What sorts of challenges, if any, does the school's physical structure pose to daily operations?
- What are some of the benefits of being housed in your current school building?
- For TREATMENT ONLY: Related to any of the topics we've just discussed, what's your vision for the new school building?

# Appendix D. School Observation Tool

BTG-COMP ▪ SCHOOL OBSERVATION FORM ▪ 2012				
SCHOOL ID :	<b>COMPLETION CODE</b>			
	COMPLETED	<input type="checkbox"/> 01		
	PARTIALLY COMPLETED – CODE DISPOSITION	<input type="checkbox"/> 02		
	NOT STARTED – CODE DISPOSITION	<input type="checkbox"/> 03		
DATE ____ - ____ - 2012    STAFF 1 ____    STAFF 2 ____ START TIME ____ : ____ <input type="radio"/> AM <input type="radio"/> PM    END TIME ____ : ____ <input type="radio"/> AM <input type="radio"/> PM	<b>DISPOSITION CODE</b>			
	Temporarily not accessible	<input type="checkbox"/> 1		
	Not safe	<input type="checkbox"/> 2		
	Asked to leave / Observation not allowed by staff	<input type="checkbox"/> 3		
NOTES	Address not found	<input type="checkbox"/> 5		
	Does not meet study criteria – DESCRIBE IN NOTES	<input type="checkbox"/> 7		
	Permanently closed / Does not exist	<input type="checkbox"/> 8		
	Other (SPECIFY):	<input type="checkbox"/> 6		
A. SETTING, PARKING AND AMENITIES				
A1. Setting	A2. Does the school have...?			
a. What type of setting is this?			NO    YES	
School Grounds	<input type="checkbox"/> 6	a. Parking On-Site	<input type="checkbox"/> 0 <input type="checkbox"/> 1	
Other, SPECIFY:	<input type="checkbox"/> 8	1. Lighted Parking <i>IF A2a=0, LEAVE BLANK</i>	<input type="checkbox"/> 0 <input type="checkbox"/> 1	
c. Is school adjacent to a public park?	<input type="checkbox"/> 0 <input type="checkbox"/> 1	b. Sidewalk on street leading to entrance	<input type="checkbox"/> 0 <input type="checkbox"/> 1	
		1. Sidewalk Lighting <i>IF A2b=0, LEAVE BLANK</i>	<input type="checkbox"/> 0 <input type="checkbox"/> 1	
c1. Do school and park share sports features?	<input type="checkbox"/> 0 <input type="checkbox"/> 1	c. Bicycle Parking	<input type="checkbox"/> 0 <input type="checkbox"/> 1	
A5. Access signage and barriers to entry	NO	YES	A3. Does the school have...?	
a. Signage indicates park/school name	<input type="checkbox"/> 0	<input type="checkbox"/> 1	a. Closing Time Signage	<input type="checkbox"/> 0 <input type="checkbox"/> 1
b. Signage states public use of area is limited to specific hours/period (e.g., after school)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	b. Restrooms/Port-o-lets (circle)	<input type="checkbox"/> 0 <input type="checkbox"/> 1
c. Signage states area is private or restricted access at all times (e.g., no trespassing, school use only)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	c. Showers/Locker Rooms (circle)	<input type="checkbox"/> 0 <input type="checkbox"/> 1
d. Locked fence around the perimeter or other physical barrier prevents public access	<input type="checkbox"/> 0	<input type="checkbox"/> 1	d. Beverage Vending Machines (#: _____)	<input type="checkbox"/> 0 <input type="checkbox"/> 1
			1. Plain Bottled Water	<input type="checkbox"/> 0 <input type="checkbox"/> 1
			2. 100% Juice	<input type="checkbox"/> 0 <input type="checkbox"/> 1
			3. Regular Soda	<input type="checkbox"/> 0 <input type="checkbox"/> 1
			4. Diet Soda	<input type="checkbox"/> 0 <input type="checkbox"/> 1
			5. Other Sweetened Drinks	<input type="checkbox"/> 0 <input type="checkbox"/> 1
			<i>IF A3d=0, SKIP 1-5</i>	



### B. SPORTS FEATURES

School ID \_\_\_\_\_

MARK "X" IF NO SPORTS FEATURES AND SKIP SECTION B

FOR EACH FEATURE BELOW, COMPLETE ITEM B1  IF B1 TOTAL >0, CODE B2 AND B3	B1. How Many?		B2. Condition of Feature – How many in each?					B3. Does the Feature have Lighting?	
	TALLY	TOTAL	1. POOR		2. OK/GOOD		COULD NOT RATE	NO	YES
			TALLY	TOTAL	TALLY	TOTAL			
a. Field, Multi-use		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
b. Field, Football		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
c. Field, Baseball		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
d. Field, Soccer		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
e. Court, Basketball		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
f. Court, Tennis		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
g. Court, Volleyball		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
i. Court, Multi-use		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
m. Running/Walking Track		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
n. Pool		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
o. Wading Pool/Spray Grounds		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
p. Playground Area		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
q. Skateboarding Facilities		_____		_____		_____		_____	<input type="checkbox"/> 0 <input type="checkbox"/> 1
FOR EACH FEATURE, COMPLETE B1 IF B1=1, CODE B2 AND B3	B1. Is Feature Present?		B2. Condition of Feature			B3. Does the Feature have Lighting?			
	NO	YES	POOR	OK/GOOD	COULD NOT RATE	NO	YES		
r. Exercise Stations with signage	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>	<input type="checkbox"/> 0	<input type="checkbox"/> 1		
s. Exercise Stations without signage	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>	<input type="checkbox"/> 0	<input type="checkbox"/> 1		
t. Rock Climbing Wall	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>	<input type="checkbox"/> 0	<input type="checkbox"/> 1		

**NOTES (write in materials used for field, court, etc. here (e.g., dirt,mulch, blacktop , etc.)**

C. SCHOOL FEATURES AND AMENITIES			School ID _____		
FOR EACH FEATURE, COMPLETE C1 IF C1=1, CODE C2	C1. Is Feature Present?		C2. Condition of Surface or Feature		
	NO	YES	POOR	OK/GOOD	COULD NOT RATE
a. Green Space (aesthetic)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
b. Green Space (recreational)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
c. Green Space (instructional)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
d. Shelters	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
e. Picnic Tables	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
f. Benches	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
g. Drinking Fountains (outside)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
h. Decorative Water Fountains	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
i. Trash Containers	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
j. Grills/Fire Pits	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
k. Trails <i>IF NO TRAILS, SKIP 1 AND 2 BELOW</i>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/>
<b>1. Two-way Traffic on Trails?</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	NOTES		
<b>2. Surface Material on Trails? CODE ONLY 1</b>					
Asphalt/Concrete	<input type="checkbox"/> 1				
Wood Chips/Mulch	<input type="checkbox"/> 2				
Gravel	<input type="checkbox"/> 3				
Dirt	<input type="checkbox"/> 4				
More than 1 material	<input type="checkbox"/> 5				
D. INCIVILITIES					
D1. How much of ... is on the school property?	NONE	A LITTLE	SOME	A LOT	
a. Garbage/Litter	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
b. Broken Glass	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
c. Graffiti/Tagging	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
d. Evidence of Alcohol Use	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
e. Evidence of Substance Abuse	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	
f. Sex Paraphernalia	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	

School Building Rating Part A	SCHOOL ID:				
<b>Scale Key</b>	<b>Notes</b>				
<b>VU Very Unsatisfactory</b> <b>U Unsatisfactory</b> <b>S Satisfactory</b> <b>VS Very Satisfactory</b> <b>N/A Does not exist</b>					
School Building Feature	Rating Scale				
Physical Features and Visual Appearance	VU	U	S	VS	N/A
1. Condition of walkways/sidewalks between indoor and outdoor areas within the campus	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
2. Visibility of main entrance for students and visitors	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
3. General condition of the exterior of the school building	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
4. Accessibility for people with physical disabilities (overall)	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
4a. Handicapped parking space	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
4b. Ramps to entrance	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
4c. Elevator(s) within building	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
4d. Railings at stairs or ramps to entrance	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
5. Building designed and built to the scale of children	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
6. Nature of community immediately surrounding school building					
6a. Pedestrians/ foot traffic	<input type="checkbox"/> None	<input type="checkbox"/> Light	<input type="checkbox"/> Mod	<input type="checkbox"/> Heavy	
6b. Non-pedestrian traffic (autos, buses)	<input type="checkbox"/> None	<input type="checkbox"/> Light	<input type="checkbox"/> Mod	<input type="checkbox"/> Heavy	
6c. Neighborhood zoning	<input type="checkbox"/> Res	<input type="checkbox"/> Bus	<input type="checkbox"/> Mixed		
6d. Conditions of surrounding buildings	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
Outdoor Features	VU	U	S	VS	N/A
7. Green areas adjacent to the learning environments	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
8. Outdoor play areas for students	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
9. Outdoor learning environments with natural elements (e.g. school garden)	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
10. Outdoor space for social interaction (e.g., picnic tables)	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>

School Building Rating Part B		SCHOOL ID:				
Scale Key		Notes				
<b>VU</b> Very Unsatisfactory <b>U</b> Unsatisfactory <b>S</b> Satisfactory <b>VS</b> Very Satisfactory <b>N/A</b> Does not exist						
School Building Feature		Rating Scale				
Learning Environment		VU	U	S	VS	N/A
11. General condition of the interior of the school building						
11a. Control of <b>internal</b> noise level		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
11b. Control of <b>external</b> noise level		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
11c. Views and natural light through windows in interior of building ( <b>hallways</b> )		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
11d. Views and natural light through windows in interior of building ( <b>foyer</b> )		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
11e. Views and natural light through windows in interior of building ( <b>stairwells</b> )		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
12. Centralized grouping of administration areas		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
13. Teachers' workspace		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
14. Classrooms directly connected to outdoors		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
15. Hallways conducive to displaying student work		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
16. Drinking water		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17. Specialty classrooms						
17a. Arts		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17b. Sciences/ science lab		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17c. Music		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17d. Dance		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17e. Computer		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17f. Library		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17g. Gymnasium		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17h. Nurse/sick room		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17i. Cafeteria		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
17j. Other [write in:]		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>

School Building Rating Part C		SCHOOL ID:				
Scale Key		Notes				
<b>VU Very Unsatisfactory</b> <b>U Unsatisfactory</b> <b>S Satisfactory</b> <b>VS Very Satisfactory</b> <b>N/A Does not exist</b>						
School Building Feature		Rating Scale				
Physical Features and Visual Appearance		VU	U	S	VS	N/A
<b>18. Classroom 1</b>						
18a. Stimulating classroom atmosphere for learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18b. Children organized into learning groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18c. Comfortable classroom temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18d. Indoor air quality in classrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18e. Adaptability of classrooms to changing uses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18f. Availability of materials and equipment for hands-on learning (e.g., terrariums, tangram blocks, manipulatives)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18g. Availability of materials and equipment conducive to student-centered instruction (e.g., student work that was self-directed, required role playing or group projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18h. Lighting quality in classrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18i. Views and natural light through windows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18j. Media and technology access for students in the classrooms (e.g., computer terminals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18k. Media and technology access for teachers in the classrooms (e.g., computer for teacher, elmo, smartboard)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>19. Classroom 2</b>						
19a. Stimulating classroom atmosphere for learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19b. Children organized into learning groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19c. Comfortable classroom temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19d. Indoor air quality in classrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19e. Adaptability of classrooms to changing uses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19f. Availability of materials and equipment for hands-on learning (e.g., terrariums, tangram blocks, manipulatives)	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _96
19g. Availability of materials and equipment conducive to student-centered instruction (e.g., student work that was self-directed, required role playing or group projects)	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _96
19h. Lighting quality in classrooms	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _96
19i. Views and natural light through windows	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _96
19j. Media and technology access for students in the classrooms (e.g., computer terminals)	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _96
19k. Media and technology access for teachers in the classrooms (e.g., computer for teacher, elmo, smartboard)	<input type="checkbox"/> _0	<input type="checkbox"/> _1	<input type="checkbox"/> _2	<input type="checkbox"/> _3	<input type="checkbox"/> _96

School Building Rating Part D		SCHOOL ID:				
<b>Scale Key</b>		<b>Notes</b>				
<b>VU Very Unsatisfactory</b> <b>U Unsatisfactory</b> <b>S Satisfactory</b> <b>VS Very Satisfactory</b> <b>N/A Does not exist</b>						
School Building Feature		Rating Scale				
Social Areas		NO	YES	notes		
20. Inside quiet areas for eating		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>			
21. Outside quiet areas for eating		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>			
22. Private spaces for students both inside and outside building (e.g. reading areas, quiet places, reflection areas, listening areas, etc.)		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>			
23. Students personalizing their own places		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>			
24. Places where students can be noisy and engage in physical activity (e.g., gymnasium)		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>			
25. Areas inside of school building open and available to the public		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>			
		<b>VU</b>	<b>U</b>	<b>S</b>	<b>VS</b>	<b>N/A</b>
Transition Spaces and Circulation Routes						
26. Circulation routes among learning environments (i.e., through hallways between classrooms)		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
27. Hallways conditions within the school		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
28. Transition spaces between school learning environments and outdoor space		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
29a. Clear markings for interior circulation routes		<input type="checkbox"/> <sub>NO</sub>	<input type="checkbox"/> <sub>YES</sub>			
29b. Clear signage for exit		<input type="checkbox"/> <sub>NO</sub>	<input type="checkbox"/> <sub>YES</sub>			
Degree of Safety and Security: Physical Features						
30. Level of perceived safety in indoor environments for students to learn		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
31. Level of perceived safety in outdoor environments for students to learn		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
32. Secured storage spaces for students' personal items (e.g., lockers or cubbies)		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
33. Secured storage spaces for teachers' personal items		<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>96</sub>
34. Access to school grounds is controlled by security screening (e.g., metal detectors or x-ray)		<input type="checkbox"/> <sub>NO</sub>	<input type="checkbox"/> <sub>YES</sub>			

equipment)					
35. There are doors on the stalls in the bathrooms	<input type="checkbox"/> NO	<input type="checkbox"/> YES			
<b>Degree of Safety and Security: Behavioral</b>					
36. Level of perceived safety in indoor environments for students to learn	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 96
37. Level of perceived safety in outdoor environments for students to learn	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 96



Rater Summary		SCHOOL ID:	
<b>Please mark within the boxes whether you agree or not with each of the following statements about the physical facilities at this school.</b>			
Facility	NO	YES	
1. Building is neat, clean, and in good repair. There are few, if any, signs of vandalism or graffiti	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
2. The use of natural light is a major feature of the building	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
3. Student work is displayed on bulletin boards, walls, tables in classes and other areas throughout the building	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
4. Announcements are posted by students and staff about activities and concerns	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
5. The building itself is flexible, including some large open spaces, some small rooms. Some spaces are multifunctional	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
6. Furniture throughout the school is movable	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
7. There are quiet places for individuals, pairs, and groups of students to withdraw, relax, and think, such as student lounges or reading lofts	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
8. There are identified places where students can be noisy and engage in physical activity. There is plenty of room in corridors and classrooms for movement from one place to another	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
9. There is outdoor space for projects such as science gardens and building projects.	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
10. The outdoor space is being used for projects such as science gardens and building projects.	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	
11. There is access to fresh drinking water	<input type="checkbox"/> <sub>0</sub>	<input type="checkbox"/> <sub>1</sub>	

# Appendix E. Street Segment Audit Tool

Baltimore 21 <sup>st</sup> Century Building Project - STREET SEGMENT OBSERVATION FORM - 2016				SEG ID:	
SCHOOL:				DATE:	/ / 20
STREET NAME:				START TIME:	: am/pm
CROSS STREETS:				END TIME:	: am/pm
NOTES:				DC#	DC#
<b>COMPLETION CODE</b>		<b>DISPOSITION CODE</b>		<b>MODE OF COMPLETION</b>	
01 COMPLETED <i>code Mode of Completion</i>		1 Temporarily not accessible		1 Walking	
02 PARTIALLY COMPLETED <i>code Disposition</i>		2 Not safe		2 Driving	
03 NOT STARTED <i>code Disposition</i>		3 Asked to leave		3 Walking & Driving	
96 NO SUCH SEGMENT		4 Ran out of time			
		6 Other (specify):			
<b>A. SAFETY SIGNS</b>				<b>B. BUILDING CONDITIONS</b>	
<b>A1. Signage Present</b>		<b>N</b>	<b>Y</b>		
a. Bicycle crossing	0	1		<b>B1. Bars on windows</b>	0 1
b. Other bicycle-related signage	0	1			
c. Pedestrian crossing	0	1			
d. Children at Play/Special Population	0	1			
<b>A2. Special Speed Limit (00 if none)</b>		mph			
<b>C. AMENITIES</b>					
<b>C1. Aesthetics</b>		<b>N</b>	<b>Y</b>	<b>C4. Overall, what is the condition of the sidewalk?</b> (If no sidewalk, skip to C5)	
a. Neighborhood or Community Sign	0	1		Poor (a lot of bumps, cracks, holes)	0
b. Garden, Flowerbed, or Planter	0	1		Moderate (some bumps, cracks, holes)	1
c. Art, Statue, or Monument	0	1		Good (very few bumps, cracks, holes)	2
<b>C2. Transit Facilities</b>		<b>N</b>	<b>Y</b>	Under repair	96
a. Bus Stop	0	1		<b>C5. How safe do you feel walking on this segment?</b>	
b. Light Rail or Trolley Stop	0	1		Not very safe or unsafe	0
c. Bench or Covered Shelter at Transit	0	1		Pretty or very safe	1
<b>C3. Amenities</b>		<b>N</b>	<b>Y</b>	<b>C6. Overall Assessment (choose one)</b>	
a. Public Trash Can	0	1		UNATTRACTIVE	0
b. Street Dispenser/Vending Machine	0	1		NEUTRAL	1
c. Benches or Other Seating	0	1		ATTRACTIVE	2
d. Drinking Fountain	0	1			
e. Bicycle Parking	0	1			

D. ADVERTISING					
TALLY (Total number of relevant ads)					TOTAL
a. Soda or Energy Drink					
b. Diet Soda or Water					
c. Beer, Wine or other Alcohol					
d. Other non-alcoholic drink					
e. Food Store/Restaurant with food/beverage					
f. Nutrition, Healthy Eating, Healthy Weight					
g. Exercise, Physical Activity, PA Events/Facilities/Services					
E. LAND USE ENVIRONMENT					
E1. Level of integration of residential and non-residential land uses			E2. Types of commercial destinations		
			Enter #		
a. No integration	0		a. Single family home		
b. A little integration	1		b. 2-, 3-, 4-, 5-, or 6-family home ("walk-ups")		
c. Some integration	2		c. Apartment building/complex or condominium		
d. A lot of integration	3		d. Apartment over retail in multi-story building		
			e. Mobile home or trailer		
			f. Mobile home or trailer park/community		
			g. Other (specify):		
E3. Types of commercial destinations					
	No	Yes		No	Yes
a. Gas station	0	1	l. Hotel or motel	0	1
b. Fast food restaurant	0	1	m. Indoor mall or supercenter	0	1
c. Other restaurant	0	1	n. Department store or "big box"	0	1
d. Convenience or small grocery store	0	1	o. Strip mall or shopping center	0	1
e. Supermarket	0	1	p. Warehouses, factories or industrial buildings	0	1
f. Bank or credit union	0	1	q. Office building	0	1
g. Pharmacy or drug store	0	1	r. Bar or liquor store	0	1
h. Coffee shop	0	1	s. Auto shop	0	1
i. Laundry or dry cleaners	0	1	t. Other retail	0	1
j. Movie theater	0	1	u. Other services	0	1
k. Other entertainment	0	1			
F. AIR AND NOISE POLLUTION					
F1. Air pollution visible or detectable through odors			F2. Noise pollution that is audible		
a. No air pollution	0		a. No noise pollution	0	
b. A little air pollution	1		b. A little noise pollution	1	
c. Some air pollution	2		c. Some noise pollution	2	
d. A lot of air pollution	3		d. A lot of noise pollution	3	

G. PHYSICAL DISORDER				
	None	A few (1-3)	Some (4-6)	A lot (7+)
a. How many whole or broken beer or liquor bottles or cans are visible in streets, yards or alleys?				
b. How many cigarette or cigar butts or discarded cigarette packages are on sidewalk or in gutters?				
c. How many condoms are on the sidewalk, in gutters, or on the street?				
d. How many needles, syringes, or drug-related paraphernalia are on sidewalk, in gutters, or on the street?				
e. How much garbage, litter, or broken glass is in the street or on the sidewalks?				
f. How many abandoned cars are there?				
g. How much graffiti is on the buildings, signs or walls?				
h. How many buildings have broken windows?				
H. SOCIAL ENVIRONMENT				
	None	A few (1-3)	Some (4-6)	A lot (7+)
a. Are there any people visible in this segment?				
b. Are there any children visible in this segment? (less than 13 years old)				
c. Are there children engaging in active behaviors? (playing a sport, running, climbing, etc.)				
d. Are there any teenagers or adults visible in this segment? (13 to 65 years old)				
e. Are there teenagers or adults engaging in active behaviors? (walking, biking, playing a sport, etc.)				
f. Are there any older adults visible in this segment? (65 years or older)				
g. Are there older adults engaging in active behaviors? (walking, biking, jogging, playing a sport, etc.)				
h. Are there people stopping to talk or greet one another?				
i. Are there people fighting, acting hostile or threatening?				
j. Are there stray dogs or animals in the segment? (not squirrels or rabbits)				
I. SOCIAL DISORDER			J. ECONOMIC DEVELOPMENT	
	No	Yes		Enter #
a. Presence of police or security guards	0	1	a. Vacant properties	
b. Teenagers in groups of three or more	0	1	b. Properties under construction	
c. Adults loitering, congregating, or hanging out	0	1	c. Mobile food vendors	
d. People selling illegal drugs	0	1		
e. People drinking alcohol openly	0	1		
f. Any drunken or otherwise intoxicated people	0	1		
g. Loud music playing (including from parked cars)	0	1		
h. People smoking openly	0	1		

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