

# Getting Beneath the Veil of Effective Schools

## Online Appendices

Will Dobbie and Roland Fryer

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# 1 Appendix A: Data Appendix

## 1.1 New York City Administrative Data

Data on student outcomes comes from the New York City Department of Education (NYCDOE). The data include information on student race, gender, free and reduced-price lunch eligibility, behavior, attendance, and state test scores for students in grades three through eight. This data appendix describes the coding of the NYCDOE files.

### Demographic variables

Demographic information was pulled from New York City enrollment files spanning the school years from 2003-2004 to 2009-2010, with precedence given to the most recent file. Race consists of the following mutually exclusive and exhaustive categories: Black, Hispanic, White, Asian, other, and missing. A student is considered eligible for free lunch if she is coded as “A” or “1” in the raw data, which indicates free lunch eligibility, or “2,” which denotes reduced-price lunch eligibility. A student is considered not eligible for free lunch if the student is coded as a “3,” which corresponds to full price. All other values, including blanks, are coded as missing. A student is considered an English Language Learner if she is coded as “Y” for the limited English proficiency variable. If any other value, including blanks, is coded in the limited English proficiency variable, a student is not considered to be an English language learner. Special education is coded similarly.

### School Enrollment

The NYCDOE enrollment file is reflective of school rosters as of October of the academic year. A student is considered to have attended a school for a full year if she is enrolled in October. "Total number of years enrolled" is defined as the number of academic years a student is listed for a particular school.

### New York State Test Scores

State test scores in grades three to eight are pulled from the NYC test score files spanning the school years from 1999-2000 to 2010-2011. Scores are standardized within years and grade to have a mean of zero and a standard deviation of one. The state mathematics and English Language Arts (ELA) tests, developed by McGraw-Hill, are conducted in grades three through eight. The math test includes questions on number sense and operations, algebra, geometry, measurement, and statistics. Tests in later grades focus on advanced topics such as algebra and geometry. The ELA test is designed to assess students on three learning standards: information and understanding; literary response and expression; and critical analysis and evaluation, which includes multiple-choice and short-response sections based on a reading and listening section as well as a brief editing task.

All public-school students are required to take the math and ELA tests unless they are medically excused or have a severe disability. Students with moderate disabilities or who are Limited English Proficient must take both tests but may be granted special accommodations - additional time, translation services, and so on - at the discretion of school or state administrators.

## 1.2 Lottery Variables

Lottery information was collected from schools between October 2009 and June 2011. Schools were asked to submit lottery files for all years that the school had been open. These records typically include a student’s name, date of birth, whether the student was selected in the initial lottery, and waitlist position if that student was not selected. Whether the student has a sibling already enrolled or in the same lottery and district of residence is also often included. This section of the appendix describes these lottery data and details the procedures used to code them.

### Lottery Treatment

A student is always coded as having “won” the admissions lottery if she received an admission offer immediately after the lottery. When students are offered admission off of the waitlist, students near the top of the waitlist are also defined as having been offered admission to the school. We conferred with each school to determine last waitlist number called for each lottery year and use the approximate average waitlist number called across all years as our cut-off. When waitlist information was not available, we infer the average across all years from the enrollment data.

### Sibling Information

Lottery applicants with siblings currently enrolled at the school are dropped from the analysis, as these students are automatically offered admission. We code a student as having a sibling in the same lottery if she had a sibling applying to the same school in the same lottery year, regardless of grade. All regressions include this sibling variable to account for the different odds of admissions among sibling pairs. Thirteen out of 21 schools submitted fully valid sibling information.

### District Information

Students who were either guaranteed admission or guaranteed not to be offered admission due to within-district preference are dropped. Eighteen out of 21 schools submitted district information.

### Match from Lottery Data to the NYCDOE Administrative Data

We match lottery data to the New York City administrative data using the maximum amount of information available. Match keys are used in the following order: (1) last name, first name, date of birth with various versions of the names (abbreviations, alternative spellings, hyphenated vs. non-hyphenated); (2) last name, first name, and various versions of the date of birth (most often the month and day reversed); (3) last name, first name, prior school, and prior grade with various likely adjustments to prior grade; (4) name, date of birth, and prior grade. Once these match keys are run, we match the remaining data by hand considering all available variables. For two schools, some of the lottery files do not include date of birth. In these cases, address was used as a match variable.

Using these procedures, we find 91.0 percent of lottery winners and 87.7 percent of lottery losers in the final data set. These numbers are comparable to the match rates achieved by others using

similar data (e.g. Hoxby and Murarka 2009). Information on match rates for each school and lottery can be found in Appendix C.

### **1.3 Survey Data**

To explore the impact of school characteristics on school success, we collected videotape, survey, and interview data from various school stakeholders. This section of the appendix describes the data gathered and details the procedures used to code them. For more information on how the data was collected see Appendix B.

#### **1.3.1 Human Capital Variables**

##### **Teacher Feedback**

Our primary measure of human capital is an indicator variable equal to one if a teacher receives formal feedback or informal feedback 10 or more times per semester.

##### **Formal Teacher Written Feedback**

Principals were asked “What would your teachers say if we asked them how often they receive formal, written feedback based on a classroom visit?” and were prompted to respond in times per semester. No answer choices were given. The variable is coded to equal the number indicated by the principals.

##### **Informal Teacher Feedback**

Principals were asked “What would your teachers say if we asked them how often they receive informal feedback based on something like a 5-minute drop-in?” and were are prompted to respond in times per semester. No answer choices were given. The variable is coded to equal the number indicated by the principals.

##### **Total Teacher Hours on all Tasks**

Principals were asked “How many hours do teachers at your school work each week, including preparation and non-academic activities? 100? 80? 60? 40?” and were prompted to respond in hours per week. No answer choices were given. The variable is coded to equal the number indicated by the principals.

##### **Highest Teacher Salary**

Principals were asked “What is the highest salary, including bonuses and merit pay, that a teacher has ever earned at your school?” and were prompted to respond in dollars per year. No answer choices were given. The variable is coded to equal the number indicated by the principals.

##### **Average Teacher Tenure**

Principals were asked “How many years on average does a teacher stay at your school?” and were prompted to respond in school years. No answer choices were given. The variable is coded to equal the number indicated by the principals.

### **Number of Non-Negotiables When Hiring**

Principals were asked “What non-negotiables do you have when hiring a new teacher?” and were given a free form to respond. If a principal mentions anything about the applicant’s resume being a non-negotiable, a resume variable is coded equal to one. If a principal mentions anything about the applicant’s personality being a non-negotiable, a personality variable is coded equal to one. If a principal mentions anything about the applicant’s collaboration skills being a non-negotiable, a collaboration variable is coded equal to one. If a principal mentions anything about the applicant’s focus on improvement being a non-negotiable, an improvement variable is coded equal to one. If a principal mentions anything about the applicant’s focus on the school’s mission being a non-negotiable, a mission variable is coded equal to one. The non-negotiables variable is coded to equal the sum of the resume, personality, collaboration, improvement, and mission variables, leaving it with a max score of five.

### **Number of Additional Teacher Tasks**

Principals were asked “In addition to planning and teaching, what other responsibilities do teachers have during the school week? Please select ALL that apply.” The answer choices include monitoring hallways, assisting in school office, monitoring the cafeteria/recess, supervising detention, assisting with food service, organizing school fundraisers, mentoring other teachers, substituting for absent teachers, and a space for principals to write in other tasks. The number of additional teacher tasks variable is coded to equal the number of tasks the principals checked.

### **Total Teacher Hours On Non-instructional Tasks**

Principals were asked “How much time does the average teacher spend on these non-instructional duties” and were prompted to respond by giving the weekly time. No answer choices were given. The variable is coded to equal the number of hours per week as indicated by the principals.

## **1.3.2 Data Use Variables**

### **Data Driven Instruction**

Schools are coded as having high quality data driven instruction if they administer 2 or more interim assessments each semester and if they have 4 or more uses for assessments. The components of this indicator variable are coded as described below.

### **Frequency of Student Assessment**

Principals of schools that use interim assessments were asked to “Please discuss the...frequency of assessment” and were given a free form to respond. The frequency of student assessments is

coded to reflect number of assessments per semester.

### **Number of Assessment Uses**

Principals were asked in their interview “Can you discuss how data from your assessments are used in the classroom and in supplemental instruction?” and were given a free form to respond. We create separate indicator variables equal to one if the principal mentioned anything about using assessments to impact tutoring groups, using assessments to assign remediation, using assessments to impact lesson planning, using assessments to create individualized goals, and if there is time set aside to go over what students missed on the assessments. The assessment use variable is the sum of these five indicator variables.

### **Interim Assessments**

Principals were asked “Does your school use interim assessments?” Answer choices included “Yes” and “No.” The variable is coded one if the principal responded with “Yes.”

### **Number of Student Reports**

Principals were asked “How often do teachers receive reports on student results?” and were prompted to respond in times per semester. No answer choices were given. The variable is coded to equal the number indicated by the principals.

### **Test Scores Used to Assign Regular Courses**

Principals were asked “Are standardized tests used to assign students to specific courses/programs?” Answer choices included “Yes” with a blank space for principals to write in which programs and “No.” The variable was coded one if the principal responded with “Yes” and included at least one on-going, non-summer school, non-after school course or program.

### **Test Scores Used to Assign Summer School Only**

Principals were asked “Are standardized tests used to assign students to specific courses/programs?” Answer choices included “Yes” with a blank space for principals to write in which programs and “No.” The variable is coded one if the principal responded with “Yes” and included exclusively summer school courses or programs.

## **1.3.3 Parent Outreach Variables**

### **Frequency of Academic Feedback to Parents**

Principals were asked “If we asked parents at your school how and for what reason teachers contact them, what would they say?” and were given a list of answer choices. For each answer choice, principals were asked to give the frequency of contact and the method. One answer choice given was academic performance. The variable is coded to equal the number of times principals reported that parents were contacted for academic feedback per school year.

### **Frequency of Behavior Feedback to Parents**

Principals were asked “If we asked parents at your school how and for what reason teachers contact them, what would they say?” and were given a list of answer choices. For each answer choice, principals were asked to give the frequency of contact and the method. One answer choice given was behavior. The variable is coded to equal the number of times principals reported that parents were contacted for behavior per school year.

### **Frequency of Regular Feedback to Parents**

Principals were asked “If we asked parents at your school how and for what reason teachers contact them, what would they say?” and were given a list of answer choices. For each answer choice, principals were asked to give the frequency of contact and the method. One answer choice given was regular check-in. The variable is coded to equal the number of times principals reported that parents were contacted for regular feedback per school year.

## **1.3.4 Instructional Time Variables**

### **Instructional Time**

Our primary measure of instructional time is an indicator variable equal to one if a school has at least 25 percent more instructional hours in a school year compared to a traditional public school in NYC. The procedure for determining the number of hours in a school year for each school and comparing it to a traditional public school in NYC is outlined below.

### **Percent Increase in Instructional Hours**

This variable is computed by first calculating the total number of instructional hours in a given school year from the instructional days and instructional hours variables described below. The percent increase or decrease of this calculated total yearly instruction hours compared to the yearly instructional hours in the traditional 6.75 hours, 180 day school calendar is then coded for this variable.

### **Number of Instructional Days**

Principals were asked “How many instructional days are in your school year?” and were prompted to respond in days. No answer choices were given. The variable is coded to equal the number indicated by the principals.

### **Number of Instructional Hours**

Principals were asked “How long is the school day?” and were prompted to respond in hours. No answer choices were given. The variable is coded to equal the number indicated by the principals.

### **Minutes of HW**



Principals were asked “How much time does the typical student at your school spend on homework each night for each of the following grade ranges?” and were given blanks for K-2nd, 3rd-5th, 6th-8th, and 9th-12th. For elementary schools, the variable is coded to equal the number of minutes per week stated for grades 3-5. For middle schools, the variable is coded to equal the number of minutes per week stated for grades 6-8.

### **Fraction of Grade Determined by HW**

Principals were asked “Does your school have a policy regarding the percentage of a course grade that is determined by homework?” Answer choices given were “Yes” or “No.” Principals that answered “Yes” were prompted to give the percent of homework that determines a course grade. The variable is coded to equal the fraction indicated by the principal.

### **Fraction of Feedback on HW**

Principals were asked “What percentage of homework assignments do teachers grade and/or provide feedback on?” and were prompted to respond in percentage. No answer choices were given. The variable is coded to equal the fraction indicated by the principal.

### **Minutes per week in Math**

Principals were asked “During a typical week, approximately how many minutes does the typical student at your school spend on each of the following subjects: Math” and were prompted to answer in minutes per week. No answer choices were given. The variable is coded to equal the number indicated by the principals.

### **Minutes per week in ELA**

Principals were asked “During a typical week, approximately how many minutes does the typical student at your school spend on each of the following subjects: English Language Arts” and were prompted to answer in minutes per week. No answer choices were given. The variable is coded to equal the number indicated by the principals.

## **1.3.5 Tutoring Variables**

### **High-Dosage Tutoring**

Schools are coded as having high-dosage tutoring if they offer small-group tutoring, if the groups are smaller than 6 students, and if groups meet 4 or more times per week. The components of this indicator variable are coded as described below.

### **Small-group Tutoring**

Principals were asked “Does your school offer small-group tutoring?” Answer choices included “Yes” and “No.” The variable is coded one if the principal responded with “Yes.”

### **Tutoring Groups Less Than 6 Students**

Principals that responded yes to the small-group tutoring question were asked to answer “Please discuss the following: Size of the groups.” The variable is coded one if the principal indicated that tutoring groups are fewer than six students on average.

### **Tutoring 4 Times a Week or More**

Principals that responded yes to the small-group tutoring question were asked to answer “Please discuss the following: What is taught and for how long: ” Principals were prompted to give the number of times per week tutoring occurs in ELA, math, history, other social studies, science, foreign language, and other. The variable is coded one if the principal indicated that tutoring in either ELA or math occurs four times per week or more.

## **1.3.6 Culture Variables**

### **High Expectations**

Principals were asked to rank a list of ten school priorities in order from the most important to least important. The priorities were “A comprehensive approach to the social and emotional needs of the whole child,” “A relentless focus on academic goals and having students meet them,” “Very high expectations for student behavior and discipline,” “Multi-modal, hands-on lessons to appeal to multiple intelligences,” “Use of technology in the classroom to engage students in the curriculum,” “Prioritizing each child’s interests and passions in designing a project-based unit,” “Building a student’s self-esteem through positive reinforcement,” “A focus on whole language and the writing process to build confidence in literacy,” “Thematic, interdisciplinary curricula to help students construct their own knowledge,” and “Ensuring that lessons first systematically develop ‘basic skills’ and second push kids beyond the concrete to develop application and synthesis skills.” A school is coded as having high academic and behavioral expectations if the top two priorities (in either order) are “A relentless focus on academic goals and having students meet them” and “Very high expectations for student behavior and discipline.”

### **Effective Schoolwide Discipline**

A discipline index is created to include all schools that responded at least five out of ten hypothetical school culture scenarios in a manner consistent with the “No Excuses” philosophy. The ten hypothetical school culture scenarios with the given answer choices as well as an indication for the “No Excuses” answer are:

Which best describes your school’s disciplinary practices?

- a. There are specific schoolwide rules that all teachers enforce in exactly the same way. (“No Excuses” Answer)
- b. The rules are the same for each class, but teachers handle each incident on a case by case basis.

c. Teachers determine the rules and infractions for their own classrooms.

How do new students learn the culture of your school?

- a. There is an explicit orientation period during which new students practice routines and learn school policies. (“No Excuses” Answer)
- b. We have a strong culture among returning students that new students adapt to quickly, without explicit practice.

Which best describes what observers will see after the bell rings for class to end?

- a. Students sit until the teacher dismisses the class; it’s a command, not the bell, that activates students. (“No Excuses” Answer)
- b. Students pack up and begin to leave only when the bell rings; the teacher might issue a few final instructions like “don’t forget your homework” as students move to the door.
- c. Some students pack up a little early; the last 60 seconds of class is not spent on learning activities.

What will observers see when a student rests his head on a desk during class?

- a. The teacher will address the behavior immediately. (“No Excuses” Answer)
- b. The teacher will avoid a confrontation that would disrupt class and will instead talk to the student privately.
- c. It will depend on the teacher - some will address the behavior immediately while others will avoid a confrontation that would disrupt class and will instead talk to the student privately.

When students finish a particular task early and are waiting for other students to finish, which of the following are student behaviors that a visitor would observe? (Please check all that apply.)

- a. Students do homework for another class. (“No Excuses” Answer)
- b. Students sit quietly and rest.
- c. Students shift to a teacher-prescribed new task. (Also a “No Excuses” Answer)
- d. Students chat quietly with each other.
- e. Other

When a teacher is giving direct instruction, an observer will see:

- a. All students sitting up straight and tracking the teacher with their eyes (“No Excuses” Answer)
- b. Some students might be slouching, but all students will be paying attention.
- c. Roughly thirds: one third will be sitting up and paying attention, another third will be slouching but focused, and another third will be distracted or off-task

Which best describes what observers will see on student desks?

- a. Desks will only contain items that are necessary for that class or subject, such as a pencil, binder, and relevant textbook. (“No Excuses” Answer)

b. Desks will contain relevant class material as well as books from other classes, random papers, folders, markers, etc.

Which best describes what observers will hear in the hallways?

- a. Silence (“No Excuses” Answer)
- b. Quiet chatting
- c. Some chatting, some shouting
- d. Loud and boisterous exchanges

Which best describes what observers will see at the beginning of class?

- a. Teachers start their classes with the learning activity that they deem most effective.
- b. Students will be quietly preparing their materials for class and starting a Do-Now activity.
- c. All students will be silently working on a Do-Now activity when the bell rings. (“No Excuses” Answer)

Which best describes what observers will see in terms of placement of bags or backpacks?

- a. All backpacks will consistently be in one place (all under chairs, all on the backs of chairs) or there will be no backpacks in the classroom. (“No Excuses” Answer)
- b. Backpacks are out of the way, but there are no set policies on where they should be placed.
- c. Some backpacks will be on desks.

### **1.3.7 Teacher Interview Variables**

Teacher information was collected from teacher interviews which lasted approximately 30 minutes. Below are the variables and how we code them.

#### **Review Student Work**

Teachers were asked “Do teachers review student work together? If so, how?” We code answers that indicate that at least half of the teachers review student work as 1 and all other answers as 0.

#### **Principal Feedback**

Teachers were asked “Does the principal give you formal feedback? If so, how and how often?” We code answers that indicate that at least half of the teachers say that principals give formal feedback as 1 and all other answers as 0.

#### **Peer Feedback**

Teachers were asked “Do you get any formal feedback from your peers? If so, how and how often?” We code answers that indicate that at least half of the teachers say that they receive formal peer feedback as 1 and all other answers as 0.

### **Student Feedback**

Teachers were asked “Do you get any formal feedback from your students? If so, how and how often?” We code answers that indicate that at least half of the teachers say that they receive formal student feedback as 1 and all other answers as 0.

### **Improve PD**

Teachers were asked “What can the school do better?” We code answers that indicate that at least half of the teachers say that the school would benefit from improved professional development as 1 and all other answers as 0.

### **Improve Curriculum**

Teachers were asked “What can the school do better?” We code answers that indicate that at least half of the teachers say that the school would benefit from improved curriculum or instruction as 1 and all other answers as 0.

### **Improve Culture**

Teachers were asked “What can the school do better?” We code answers that indicate that at least half of the teachers say that the school would benefit from improved school culture as 1 and all other answers as 0.

### **Improve Staff Communication**

Teachers were asked “What can the school do better?” We code answers that indicate that at least half of the teachers say that the school would benefit from improved staff communication as 1 and all other answers as 0.

### **First Year Support**

Teachers were asked “Could the school do anything better to support teachers? What about first year teachers?” We code answers that state that at least half of the teachers say that everything is already being done as a 1 and all other answers as 0.

### **Teacher-Centered Reason Students Are Off Task**

Teachers were asked “In general, what percent of students in class are on task within the first five minutes?” and if the answer was not 100 percent then “Why do you think the answer is not 100 percent?” We code answers that state that at least half of the teachers give a teacher-centered reason as a 1 and all other answers as 0.

### **Teacher-Centered Reason Students Cannot Explain Material**

Teachers were asked “In general, what percent of students will be able to explain what you

covered in class on a given day?” and if the answer was not 100 percent then “Why do you think the answer is not 100 percent?” We code answers that state that at least half of the teachers gave a teacher-centered reason as a 1 and all other answers as 0.

### **Performance Pay**

Teachers were asked “Does your school have a system of pay for performance, where teachers are rewarded for their students’ state test scores?” We code answers that indicate that at least half of the teachers said that they receive performance pay as described in the question as 1 and all other answers as 0.

### **Unions Can Help**

Teachers were asked “One difference between charter schools and public schools is often that public school teachers are unionized. Do you think a school can be successful at raising the achievement of struggling kids where there is a strong teacher’s union? Why or why not?” We code answers that indicate that at least half of the teachers said that schools with strong unions can raise student achievement as a 1 and all other answers as 0.

### **Lesson Plan Support**

Teachers were asked “What does the school do to help you develop lesson plans?” with potential follow-up questions including “Does the school give you any templates to work with? Do you work with a coach or other administrator to prepare your lessons? Do you work with other teachers to prepare lesson plans?” We count the number of times teachers mentioned any of the following: work with administration, work with colleagues, professional development at the beginning of the year, grade-level team meetings, department meetings, professional development throughout the year, copies of exemplary lesson plans, work with a curriculum specialist, and standardized lesson plan format. When teachers said at least an average of two of the answers, we coded this as a 1 and all other answers as 0.

### **Schoolwide Routines**

Teachers were asked “What kind of standard classroom routines or instructional practices does the school expect teachers to follow at your school? For instance, is there a standard school-wide routine for how to begin a class or end a class?” We count the number of times teachers mention routines for any of the following: beginning of class, end of class, beginning of the school day, end of the school day, classroom discipline system, classroom awards system, assessment system, and attendance system. When teachers said at least an average of two of the answers, we coded this as a 1 and all other answers as 0.

### **On Task**

Teachers were asked “In general, what percent of students in class are on task within the first

five minutes?” We code the average percent reported by teachers of a given school.

### **Explain Material**

Teachers were asked “In general, what percent of students will be able to explain what you covered in class on a given day?” We code the average percent reported by teachers of a given school.

### **Teacher Work Hours**

Teachers were asked “How many hours are you expected to work each week - this includes preparation and activities beyond the school day?” We code answers where the average reported by the teachers of a given school exceeds 55 hours per week as a 1 and all other answers as 0.

### **Good Teachers**

Teachers were asked “We’ve noticed some charter schools are very open about test scores and teacher performance, so we’d like to ask you to write down on this card the names of two or three teachers in your school who are the best at raising standardized test scores. You can include yourself. Without mentioning names, what specifically do these teachers do that makes them successful?” We count the number of times teachers mentioned any of the following: hard work, high expectations, good classroom management, positive relationships, good curriculum, good pedagogy, and good assessment system. We code responses that includes an average number of any of these answers given as more than one as a 1 and all other answers as 0.

### **Bad Teachers**

Teachers were asked “Now, please write down on the other side of this card the names of two or three teachers in your school who don’t seem able to raise kids’ scores. Again, you can include yourself. Without mentioning names, what specifically do these teachers do, or not do, that keeps them from being successful?” We count the number of times teachers mentioned any of the following: no hard work, low expectations, poor classroom management, negative relationships, poor curriculum, poor pedagogy, and poor assessment system. We code responses that includes an average number of any of these answers given as more than one as a 1 and all other answers as 0.

## **1.3.8 Student Interview Variables**

Student information was collected from student interviews which lasted approximately 20 minutes.

### **Ask Teacher During Class**

Students were asked “When there is something you don’t understand in class, what do you do? Do you ask the teacher during class?” We code answers that indicate that all students ask the teacher during class as a 1 and all other answers as 0.

### **Ask A Friend**

Students were asked “When there is something you don’t understand in class, what do you do? Do you ask a friend?” We code answers that indicate that all students ask a friend as a 1 and all other answers as 0.

### **Ask Someone At Home**

Students were asked “When you get stuck one a homework question and you’re at home, what do you do? Do you ask someone at home?” We code answers that indicate that all students ask someone at home as a 1 and all other answers as 0.

### **Use Computers For HW**

Students were asked “When you get stuck one a homework question and you’re at home, what do you do? Do you look things up on the computer?” We code answers that indicate that all students use a computer as a 1 and all other answers as 0.

### **Consistent Discipline**

Students were asked “What happens if you talk to your friends in class when you should be paying attention? Is it the same in all classes or can you get away with more with some teachers?” We code answers that indicate that at least half of the students say that teachers enforce discipline consistently as a 1 and all other answers as 0.

### **Friends Going to College**

Students were asked “What percent of your friends at school do you think will graduate from college?” We code the average percent given by the students of a given school. Additionally, we code a student response of “all of them” as 100%, “a lot” as 75%, “some” or “half” as 50%, “few” as 25%, and “none” as 0%. If it is not possible to assign a number to a student based on this coding, we leave the response as missing.

### **Kids From Neighborhood Going to College**

Students were asked “What about your friends in the neighborhood who don’t go here?” We code the average percent given by the students of a given school. Additionally, we code a student response of “all of them” as 100%, “a lot” as 75%, “some” or “half” as 50%, “few” as 25%, and “none” as 0%. If it is not possible to assign a number to a student based on this coding, we leave the response as missing.

### **Response To Incentives**

Students were asked “If I offered you \$1000 to do really well in class and on every test, how would you do it? Are those different things than you do now?” We code answers that indicate that half the students would do something differently for incentives as a 1 and all other answers as 0..



### 1.3.9 Lesson Plan Variables

Schools were asked to turn in a math and ELA lesson plan for each grade. We code one math and one ELA rubric for each grade, choosing the lesson plan that addresses the most categories on our rubric.

#### **Objective Standard is At or Above Grade Level**

The state standard level is judged by comparing the content covered in the lesson objective to the appropriate list of New York state grade level standards, which are to guide instruction for all public school students in the state. The standards can be found at <http://www.p12.nysed.gov/ciai/standards.html>. In the case where a lesson has more than one objective, the most advanced objective is chosen. We code this indicator variable as a 1 if the most advanced objective mentioned aligns with a state standard that is either at or above the class's grade level and as a 0 otherwise.

#### **Bloom's Taxonomy**

Lesson plan complexity is judged using the cognitive domain of Bloom's taxonomy, which indicates the level of higher order thinking required to complete the objective. The main action verb describing the lesson plan objective is categorized on a six-point-scale according to a list of verbs listed according to the six Bloom's Taxonomy levels. The list of verbs can be found at [http://www.teach-nology.com/worksheets/time\\_savers/bloom/](http://www.teach-nology.com/worksheets/time_savers/bloom/).

The six Bloom's Taxonomy levels, from least complex to most, are defined as: Knowledge (1), Comprehension (2), Application(3), Analysis(4), Evaluation(5), Synthesis (6). Verbs that indicate Knowledge level include: Count, Define, Describe, Draw, Find, Identify, Label, List, Match, Name, Quote, Recall, Recite, Sequence, Tell, and Write. Verbs that indicate Comprehension level include: Conclude, Demonstrate, Discuss, Explain, Generalize, Identify, Illustrate, Interpret, Paraphrase, Predict, Report, Restate, Review, Summarize, and Tell. Verbs that indicate Application level include: Apply, Change, Choose, Compute, Dramatize, Interview, Prepare, Produce, Role-play, Select, Show, Transfer, and Use. Verbs that indicate Analysis level include: Analyze, Characterize, Classify, Compare, Contrast, Debate, Deduce, Diagram, Differentiate, Discriminate, Distinguish, Examine, Outline, Relate, Research, and Separate. Verbs that indicate Evaluation level include: Appraise, Argue, Assess, Choose, Conclude, Critic, Decide, Evaluate, Judge, Justify, Predict, Prioritize, Prove, Rank, Rate, and Select. Verbs that indicate Synthesis level include: Compose, Construct, Create, Design, Develop, Integrate, Invent, Make, Organize, Perform, Plan, Produce, Propose, and Rewrite.

The variable is coded to equal the complexity level of the objective in the lesson with a score of six signifying the most complex and one as the least complex. In the case where a lesson has more than one objective, the most complex objective is chosen.

#### **Minimum Components**

We count how many of the following 4 aspects a lesson plan has: an objective, a main activity, a formative check for understanding, and a summative lesson assessment. We code any lesson with all 4 components as a 1 and all other lessons a 0.

### **Number of Checks For Understanding**

We count how many checks for understanding (CFU) are included in the lesson plan. We code the CFU variable to be this count.

### **Lesson Plan Thoroughness**

We count how many of the following aspects a lesson plan has: divided in sections, an objective, an essential question, a do now, key words section, materials section, introduction section, main learning activity, a check for understanding, an assessment, a closing activity, time needed for each section, homework section, teacher reflection section, and whether the lesson plan follows a standardized format. We normalize the count of aspects to have a mean of zero and a standard deviation of one.

### **Individual Learning Activity**

We code all lessons where students have to work individually to complete the main learning activity as a 1 and all other lessons as a 0.

### **Learning Activity in Pairs**

We code all lessons where students have to work in pairs to complete the main learning activity as a 1 and all other lessons as a 0.

### **Learning Activity in Groups**

We code all lessons where students have to work in groups of three or more to complete the main learning activity as a 1 and all other lessons as a 0.

### **Learning Activity as a Whole Class**

We code all lessons where students have to work as a whole class to complete the main learning activity as a 1 and all other lessons as a 0.

### **1.3.10 Video Observation Variables**

We videotaped at least two classrooms from each school we visited. Every video observation is coded by two different coders who then reconcile differences in coding. This section of the Appendix describes these data and details the procedures used to code them.

### **Fraction of Students on Task**

Tapes are stopped every two minutes and the number of students on camera, number of students visibly engaged for 3 of the past 6 seconds, and number of students visibly disengaged is recorded. Where the engagement level is unclear, half of such students are recorded as engaged while the other half are listed as not engaged. The fraction of students on task variables is coded as the average percentage of students on camera who are engaged during the entire class.

### **Fraction Positive Feedback Given by Teacher**

Every time the teacher gave feedback to the class is coded as positive or negative. Positive feedback refers to comments by the teacher that affirmed the student's behavior such as "That assignment was well done." Negative feedback is that which reprimanded students, such as "Stop talking to your neighbor." The total amount of positive feedback given divided by the total feedback of any type is coded as the fraction positive teacher feedback variable.

### **Fraction Specific Feedback Given by Teacher**

Every time the teacher gave feedback to the class is coded as specific or general. Specific feedback refers to feedback given to one particular student or group of students. General feedback refers to feedback given to the class as a whole without specifying a particular student or group of students. The total amount of specific feedback given divided by the total feedback of any type is coded as the fraction specific teacher feedback variable.

### **Students Wear Uniform**

If a majority of students on tape are wearing uniforms, this variable is coded as one.

### **Major Disruption Occurred in the Class Period**

If any major classroom disruptions occur, behavioral or otherwise, in which the teacher had to stop the lesson, this variable is coded as one.

## **1.3.11 Other Control Variables**

### **Wrap-Around Services**

From the school leader phone interview data, we create a set of indicator variables equal to one if a school has a school social worker, if they provide health services, and if they provide any wrap-around services of any type. We also create an indicator variable equal to one if they rank "a comprehensive approach to the social and emotional needs of the whole child" as one of their top two school priorities on the written leadership survey. Our index of wrap-around services is the standardized sum of these four dichotomous variables.

### **Teacher Selection**

The teacher selection measure captures whether the school has an above median number of requirements when hiring a new teacher, whether the school has above median involuntary turnover,

whether the school has above median salaries, and whether the school has a performance pay system for teachers. The teacher selection variable is the normalized sum of these four indicator variables that are coded as indicated below.

### **“No Excuses” Status**

Each school in our sample is classified as “No Excuses” or not by school leaders at the Democracy Prep Charter School, a prominent “No Excuses” middle and high school. Schools that were identified by school leaders at Democracy Prep Charter School are coded as 1, others are coded as 0.

### **Aggregate Controls**

The aggregate control index is created by standardizing the sum of six indices capturing human capital policies, data policies, parent engagement strategies, instructional time differences, culture, and curricular rigor to have a mean of zero and a standard deviation of one. Each of the six indices in turn is created by standardizing the sum of a number of dichotomous variables to have a mean of zero and a standard deviation of one. In total, the index captures variation in 37 measures - virtually all of the data we collected in the administrator survey.

The human capital index includes whether a school uses a common lesson plan template, whether a school has an above median number of non-negotiables when hiring new teachers, whether a school has an above median number of teacher responsibilities, whether a school has packaged curriculum, whether a school has a common planning period, whether a school has an above median teacher workload, whether a school has an above median teacher workload in non-instructional areas, whether a school has an above median teacher tenure, and whether a school has an above median maximum teacher salary.

The data index includes whether a school uses data to assign students to summer school, whether a school uses data to assign students to regular classes, whether a school has an above median overall data use score calculated from the phone interview, whether a school has a data plan in place, and whether a school has an above median number of data reports each semester.

The parent engagement index includes whether a school has an above median number of calls home to parents for regular check-ins, to talk about academic issues, and to talk about behavioral issues.

The instructional time index includes whether a school has an above median instructional minutes in ELA and math.

The culture index includes each answer to the 10 question culture survey.

The lesson plan index includes whether a school has an above median Bloom’s score, whether a school has an above median objective rating, whether a school has an above median level of lesson plan differentiation, whether a school has an above median number of CFUs, and whether a school has an above median level of lesson plan thoroughness.

## 1.4 Administrative Data on School Characteristics

To explore the association between school characteristics and achievement gains in schools that did not take our survey, we collect school specific administrative data on human capital, data driven instruction, instructional time, parent engagement, and culture for every possible charter school in New York City. Our administrative data is drawn primarily from documentation of annual site visits conducted by each school’s chartering organization. New York City charter schools are authorized by the NYCDOE, State University of New York (SUNY), or New York State Education Department (NYSED). Each chartering organization conducts an annual site visit to each chartered school. The site visits are meant to “describe what the reviewers saw at the school - what life is like there. The report identifies some of the strengths in the school, as well as areas where improvement is needed” (NYCDOE 2011).

As of the 2010-2011 academic year, 69 schools had been chartered by the NYCDOE, 49 schools by SUNY, and 7 schools by NYSED. We found 36 elementary and 23 middle schools with publicly available site report data that are eligible for our sample by having students enrolled in any of grades 3 through 8 by the 2009-2010 school year. None of the NYSED-chartered schools had annual site visit reports available on the NYCDOE website. We find 14 elementary schools and 8 middle schools with both our survey data and annual site visit data available, and we find 22 elementary schools and 15 middle schools with only annual site visit data available. The remaining 3 elementary schools and 4 middle schools have only survey data available.

We code the most recently available site visit available for each school. In our sample, we find 4 eligible elementary schools and 4 eligible middle schools chartered by the NYCDOE with 2006-2007 as the most recently available site visit report, 10 eligible elementary schools and 9 eligible middle schools chartered by the NYCDOE with 2007-2008 as the most recently available site visit report, and 4 eligible elementary schools and 2 eligible middle schools chartered by the NYCDOE with 2008-2009 as the most recently available site visit report. In our sample we also find 3 eligible elementary schools and 3 eligible middle schools chartered by the SUNY with 2006-2007 as the most recently available site visit report, 4 eligible elementary schools and 1 eligible middle school chartered by the SUNY with 2007-2008 as the most recently available site visit report, 6 eligible elementary schools and 4 eligible middle schools chartered by the SUNY with 2008-2009 as the most recently available site visit report, and 3 eligible elementary schools and no eligible middle schools chartered by the SUNY with 2009-2010 as the most recently available site visit report.

Site visit reports chartered by the NYCDOE have rubrics at the end of the report that rate schools on a 3, 4 or 5 point scale, varying depending on the year, on the prompts listed below. We code all variables for these schools using the 2008-2009 site visit rubric as the base and making adjustments to align other years. The 2006-2007 site visit rubrics are scored on a 3-point scale where Undeveloped is coded as a 1, Proficient is coded as a 2, and Well Developed is coded as a 3. The 2007-2008 site visit rubrics are scored on a 5-point scale where Underdeveloped is coded as a 1, Underdeveloped with Proficient Features is coded as a 2, Proficient is coded as a 3, Well Developed is coded as a 4, and Outstanding is coded as a 5. SUNY site visit reports are completely

qualitative and we adjust our coding to account for this. The 2008-2009 site visit rubrics are scored on a 4-point scale where Underdeveloped is coded as a 1, Underdeveloped with Proficient Features is coded as a 2, Proficient is coded as a 3, and Well Developed is coded as a 4. The 2009-2010 site visit reports do not include a rubric and are different in format from previous years' reports, thus we do not count 2009-2010 reports as the most recently available report for schools that have reports from previous years. We find 11 schools with the 2009-2010 report as the only report available out of which 4 of these schools could have been eligible for our sample, though ultimately we choose not to include any of them as we mention.

SUNY site visit reports are completely qualitative and we adjust our coding to account for this.

We also collect administrative data from the Charter School Center (CSC) and New York State Accountability and Overview Reports. The Charter School Center (CSC) is a non-profit created to support and grow charter schools in New York City. The CSC keeps basic school information including contact information, application deadlines, and school schedule from the most recent academic year on its website. We use the information on this website to collect the length of the instructional year and school day for charter schools not in our survey sample. For schools without instructional time information on the CSC website, we use individual school websites to find this information.

According to the NY State Testing and Accountability Reporting Tool, each year the state will publish an Accountability and Overview Report Card for each school that provides data on enrollment, demographics, attendance, teacher information, and other accountability measures. All of the eligible schools in our sample had a published Accountability and Overview Report Card.

#### **1.4.1 Traditional School Input Measures**

##### **Student-to-Teacher Ratio**

The student-to-teacher ratio is coded using data contained in the New York State Accountability and Overview Report. Total enrollment and total number of teachers is given for each of the past three years on a school's State Report Card. We divide enrollment by total number of teachers to calculate that year's student-to-teacher ratio in the most recent year.

##### **Teachers with Master's Degree or Higher**

The percent of teachers with a master's degree or higher is coded from data contained in the New York State Accountability and Overview Reports and is given for each of the past three years on a school's State Report Card. We assign each school its most recently available measure.

##### **Classes Taught by a Teacher Without Valid Certification**

The percent of classes taught by teachers without valid certification is coded from data contained in the New York State Accountability and Overview Reports and is given for each of the past three years on a school's State Report Card. We assign each school its most recently available measure.

## **Teacher Turnover**

The percent of teacher turnover is coded from data contained in the New York State Accountability and Overview Reports and is given for each of the past three years on a school's State Report Card. We assign each school its most recently available measure.

## **Per Pupil Expenditure**

The per pupil expenditure measure combines data taken from Charter School audits and the New York State Accountability and Overview Report. Each year New York City charter schools post an annual financial audit on the DOE website. We code the total expenditures, operating and administrative, for each fiscal year as the total expenditures for that year. The total enrollment for each of the last three years is given on the New York State Report Cards. We divide total expenditures by total enrollment to calculate that year's per pupil expenditure. We assign each school its most recently available per pupil expenditure measure.

### **1.4.2 Human Capital Variables**

#### **Principal Observations**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 4.1 use frequent observations of classroom teaching by the principal and other available information to develop a differentiated strategy for improving the quality of each teacher's instruction. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 4.1 use frequent observations of classroom teaching by the principal and other available information to develop a differentiated strategy for improving the quality of each teacher's instruction. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, schools were rated on a 3-point scale on the prompt: 4.1 The principal frequently observes classroom teaching and has a considered strategy for improving the quality of each teacher's instruction. Teachers frequently observe and support each other's classroom instruction with the goal of improving student outcomes. We code scores of 2 or 3 as a 1 and other scores as a 0.

In the SUNY site visit files, principal observations is coded as a 1 if teachers said that the principal or school leadership observes, often or always, and a 0 if not. This is generally found in the Instructional Leadership section of the report.

#### **Teacher Observations**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt:

4.3 provide frequent opportunities for teachers to observe each other's classroom instruction and to meet together in teams to plan, share effective practices, and evaluate one another's instruction in an open and reflective professional environment. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 4.3 provide frequent opportunities for teachers to observe each other's classroom instruction and to meet together in teams to plan, share effective practices, and evaluate one another's instruction in an open and reflective professional environment. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, this data was not in the report rubrics.

In the SUNY site visit files, teacher Observations is coded as a 1 if teachers said that they are given the opportunity to observe their colleagues often or always and a 0 if not. This is generally found in the Instructional Leadership section of the report.

### **New Teacher Support**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 4.4 develop effective procedures for the induction and support of teachers who are new to the profession or the school. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 4.4 develop effective procedures for the induction and support of teachers who are new to the profession or the school. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, this data was not in the report rubrics.

In the SUNY site visit files, new teacher support is coded as a 1 if teachers said that there are procedures in place to support new teachers and a 0 if not. This is generally found in the Instructional Leadership section of the report. New teacher procedures effective is coded as a 1 if teachers said that procedures in place to support new teachers are effective and a 0 if not. This is generally found in the Instructional Leadership section of the report.

### **High Quality Professional Development**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 6.4 ensure that teachers are provided with high quality professional development opportunities to further build on their professional expertise. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 6.4 ensure that teachers are provided with high quality professional development opportunities to



further build on their professional expertise. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, this data was not in the report rubrics.

In the SUNY site visit files, high quality professional development is coded as a 1 if observers or teachers said that professional development offered at the school is effective or adequate and a 0 if not. This is generally found in the Professional Development section of the report.

### **1.4.3 Data Use Variables**

#### **Data Driven Instruction**

A school is coded as having high quality data driven instruction if they give frequent assessments and differentiate instruction by data, both as defined below.

#### **Interim Assessments Given**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 5.3 teachers and faculty use periodic assessments and other diagnostic tools to measure the effectiveness of plans and interventions for individual and groups of students in key areas. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 5.3 teachers and faculty use periodic assessments and other diagnostic tools to measure the effectiveness of plans and interventions for individual and groups of students in key areas. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, schools were rated on a 3-point scale on the prompt: 5.2 Comparisons of student progress within and across classrooms and schools are used in making interim diagnostic assessments and measuring the progress of plans and interventions. We code scores of 2 or 3 as a 1 and other scores as a 0.

In the SUNY site visit files, interim assessments given is coded as a 1 if observers reported that schools give interim assessments and a 0 if not. This is generally found in the Use of Assessment Data section of the report.

#### **Differentiation by Data**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 3.4 ensure that teachers use school, classroom and student data to plan for and provide differentiated instruction that meets the specific needs of all the students in their charge. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 3.4 ensure that teachers use school, classroom and student data to plan for and provide differentiated instruction that meets the specific needs of all the students in their charge. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, schools were rated on a 3-point scale on the prompt: 3.2 Teachers are accountable for improving instruction and student outcomes. They plan and differentiate their instruction based on the needs revealed by student data and by the focused plan the school has developed to improve each student's and group of students' outcomes. We code scores of 2 or 3 as a 1 and other scores as a 0.

In the SUNY site visit files, differentiation by data is coded as a 1 if observers reported that intervention, differentiation, or individual student decisions are based on data for interim assessments and a 0 if not. This is generally found in the Use of Assessment Data section of the report.

### **Lesson Plan Modified Due to Results of Data**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 5.4 teachers and school leaders use the information generated by periodic assessments and other progress measures to revise plans immediately and make strategic decisions to modify practices in order to reach stated goals. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 5.4 teachers and school leaders use the information generated by periodic assessments and other progress measures to revise plans immediately and make strategic decisions to modify practices in order to reach stated goals. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, this data was not in the report rubrics.

In the SUNY site visit files, lesson plan revised is coded as a 1 if observers explicitly reported that lesson plans or instruction changed based on data and a 0 if not. This is generally found in the Use of Assessment Data section of the report.

### **Data PD Given**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 1.6 training, management systems and structures that support teachers in the use of school data to inform planning and instruction and to track the progress of students. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 1.7 training, management systems and structures that support teachers in the use of school data to inform planning and instruction and to track the progress of students. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, this data was not in the report rubrics.

In the SUNY site visit files, data PD given is coded as a 1 if observers reported that training is given to teachers to analyze assessment data and a 0 if not. This is generally found in the Use of Assessment Data section of the report.

#### **1.4.4 Parent Outreach Variables**

##### **Parents Involved**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 2.6 invite and enable parents/caregivers to provide useful information to teachers and the school about the learning needs and capacities of their children. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompts: 2.6 regularly provide students and their parents/caregivers with information about the goals set for each student, about each student's progress and performance, and how they can improve 2.7 invite and enable parents/caregivers to provide useful information to teachers and the school about the learning needs and capacities of their children. We average the scores on both prompts and code scores of greater than 4 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, this data was not in the report rubrics.

In the SUNY site visit files, parents involved is coded as a 1 if observers reported that parents are involved in the school through a parent organization or other formal or semi-formal channel and a 0 if not. This is generally found in the Student and Parent Satisfaction section of the report.

#### **1.4.5 Instructional Time Variables**

##### **Hours per Day**

The hours per day variable is the average hours per day school is in session. It is coded from the school day timing given for each charter school on the CSC website. For schools that do not have timing posted on the CSC website, individual school websites are also checked for a sample school

schedule. Schools that also do not have timings posted on their website are listed as missing.

### **Extended Year**

The CSC website has an indicator for whether a school has an extended year in the 2010-2011 school year. We code a "Yes" as a 1 and "No" as a 0.

### **Days per Year**

We look on individual school websites to find a start and end date on a school calendar. We use this to then calculate the number of days school is in session for the 2011-2012 school year and use that as our days per year variable. A few school networks, Achievement First, Uncommon, and KIPP, had sample schedules typical to network schools available, which we used for all network schools.

## **1.4.6 Culture Variables**

### **Effective Schoolwide Discipline**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 4.6 consistently implement clear procedures that enable the school to run smoothly, encourage effective learning, and effectively address discipline-related incidents. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt: 4.6 consistently implement clear procedures that enable the school to run smoothly, encourage effective learning, and effectively address discipline-related incidents. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, schools were rated on a 3-point scale on the prompt: 4.6 the school runs smoothly, procedures are clear, communicated to all, and are generally followed. We code scores of 2 or 3 as a 1 and other scores as a 0.

In the SUNY site visit files, effective schoolwide discipline is coded as a 1 if observers report that schools provide a climate that is completely conducive to learning and a 0 if not. This is generally found in the Student Order and Discipline section of the report.

### **High Expectations**

In the NYCDOE 2008-2009 site visit files, schools were rated on a 4-point scale on the prompt: 2.5 convey consistently high expectations to students and their parents/carers. We code scores of 3 or 4 as a 1 and other scores as a 0.

In the NYCDOE 2007-2008 site visit files, schools were rated on a 5-point scale on the prompt:

2.5 convey consistently high expectations to students and their parents/carers. We code scores of 4 or 5 as a 1 and other scores as a 0.

In the NYCDOE 2006-2007 site visit files, schools were rated on a 3-point scale on the prompt: 2.5 Goals and plans for improving student performance and progress drive the activity of all members of the school community: leaders, staff, students, parents, and other partners. We code scores of 2 or 3 as a 1 and other scores as a 0.

In the SUNY site visit files, high expectations is coded as a 1 if observers report that high discipline expectations are communicated to students and/or parents and a 0 if not. This is generally found in the Student Order and Discipline section of the report.

## 2 Appendix B: Data Collection

### 2.1 Recruitment

We attempted to collect survey, lottery, and video data for all charter schools in New York City with students in grades 3 - 8 during the 2010 - 2011 school year. We exclude charter high schools as high school students take different assessments, making a comparison of charter and non-charter students difficult. We exclude charter schools with students in only K - 2 as we do not have test scores for those grades. We also exclude schools that opened after 2009 - 2010. A school is considered an elementary school if it admits students in grades K - 4, and a middle school if it admits students in grades 5 - 8. A school that admits students in both K-4 and 5-8 is considered both an elementary school and a middle school. These restrictions leave 37 charter middle schools and 48 charter elementary schools. In the spring of 2010, each eligible school was invited to participate in the project. We also hosted an informational event at the New York Charter Center to explain the project to interested schools. Participating schools were offered a \$5000 stipend to be received conditional on providing all of the appropriate materials.

Once schools agreed to participate, they signed a Non-Disclosure Agreement with Harvard University. They were asked either to confirm that they already had a blanket videotaping policy in their school (with records of parents who opted out for their children) or to distribute a letter from the research team, indicating that parents should contact the school if they did not want their children videotaped as part of the study.

By Spring of 2010, 13 eligible schools (7 elementary schools, 6 middle schools) had agreed to participate in the study. At this time, participating schools were asked to submit administrative data which included principal surveys, homework and lesson plans for math and ELA for each grade level, lottery results, and a sample of teacher evaluations. Schools also scheduled school visits and administrator interviews that took place in either Spring 2010 or Fall 2010.

Schools that showed interest in participating in the study during Spring 2010 were re-contacted during the Summer of 2010. At this time 17 more eligible schools (11 elementary schools and 6 middle schools) agreed to participate. These schools were asked to submit administrative data and schedule school visits and administrator interviews. School visits took place during the Fall of 2010.

In the Fall of 2011 we sent final solicitations to all eligible schools that had not yet responded. To increase response rates for the core data elements, we offered \$750 for returning the administrator survey and an additional \$750 for returning valid admissions lottery data. At this time 5 more elementary schools and 1 more middle school returned administrator surveys, and 1 elementary school and no middle schools turned in lottery results.

In total, the survey sample includes 23 elementary schools and 13 middle schools. The lottery sample includes 13 elementary schools and 9 middle schools.

## 2.2 School Visits

School visits were conducted on behalf of the researchers by the University of Michigan Institute for Social Research (ISR), the world's largest academic social science survey and research organization. ISR partnered with the researchers to develop and implement on-site data collection activities at charter schools in New York City. The data collection activities included audio-recorded teacher and student interviews and video-recorded classroom observations.

An ISR staff member contacted each participating school to select the date for the site visit. This scheduler also asked for a designated contact person at the school to help develop the detailed schedule of the day. Once a schedule for the day was completed, it was emailed to the school contact and principal, as well as the school researchers. This schedule provided the framework for the visit, although often changes had to be made in the field to accommodate shifting school needs and requirements.

A team of at least two school researchers visited each school. One school researcher was designated as the school liaison. This person had the information of the primary school contact and verified the details of the visit beforehand. The second school researcher was designated as the technical coordinator. The two researchers alternated between conducting the interviews and conducting the classroom observations.

The key contact from the school was often the person who escorted students, and sometimes teachers, to and from interviews. In some cases, another individual was explicitly designated, while in other cases it was less structured. Our goal for each visit was to capture four teacher interviews, four student interviews, and four different classroom observations, including in those observations a total of at least four transitions (either between class periods or, for elementary school, between topics or classroom set-ups in one class). Whenever possible we captured after-school activities, but in many cases no such activities were scheduled on the day of our visit.

When conducting classroom observations, the researcher would introduce him or herself, if requested to do so by the teacher: "I am here to videotape your classroom as part of a Harvard study of charter schools." Otherwise the goal was to remain as unobtrusive as possible. In addition to positioning the camera, however, the researcher needed to attach a lavalier microphone on the teacher.

Some additional disruption was often necessary when the schedule required the researcher to enter a class while it was in progress. The cramped space in many of the classrooms made this especially challenging.

The researcher attempted to position him or herself near the back of the classroom, with the goal of keeping the teacher as well as the majority of the students in the camera view at all times. The exception to this wide view approach was for brief close-ups of material being presented by the teacher on the board or overhead. The focus was on capturing overall classroom management and transitions as well as instruction.

We completed 40 school visits at 32 campuses. In eight cases, a campus with both elementary and middle schools was split into two or three visits. After accounting for sessions where technical

malfunctions occurred or last-minute withdrawal of consent by the participants, we completed 156 teacher interviews, 144 student interviews, and 170 classroom observations, for a total of 470 video and audio files. Of those observations, 12 were after-school or before-school sessions.

Teacher interviews were conducted in person. Interviews took approximately 30 minutes and were recorded on audio tape. Twenty-eight out of 35 schools in our study have valid teacher interviews. For the five of the schools recruited in the Fall of 2011, South Bronx Charter School ES, Mott Haven ES, KIPP Infinity MS, FLACS ES, and Bronx Academy of Promise ES, we were not able to obtain interviews. We were also not able to obtain interviews for Harlem Success Academy ES and St. Hope ES.

Student interviews were conducted in person. Interviews took approximately 20 minutes and were recorded on audio tape. Twenty-one out of 35 schools in our study have valid student interviews. For the five of the schools recruited in the Fall of 2011, South Bronx Charter School ES, Mott Haven ES, KIPP Infinity MS, FLACS ES, and Bronx Academy of Promise ES, we were not able to obtain interviews. We were also not able to obtain interviews for Harlem Success Academy ES, St. Hope ES, Excellence ES, Brooklyn Ascend ES, Renaissance ES, Renaissance MS, Bronx CSC ES, Equality ES, and Bronx Charter School for the Arts ES.

## **2.3 Administrator Surveys and Interviews**

### **Administrator Surveys**

Administrators submitted surveys over email or fax. Principals were told surveys would take approximately 25 minutes to fill out. Twenty-nine out of 35 principals in our study submitted surveys. For four of the schools missing surveys in our sample, Explorer MS, HCZ Promise Academy MS, Harbour Science and Arts ES, Success Academy ES, and Renaissance ES, we code survey results from a directly upper or lower school run by the same charter management organization (CMO) with the same NYC identification code that we had surveys for. For one of the schools in our study, Harlem Success Academy ES, we used the survey results from a charter school run by the same CMO. For another school in our study, Future Leaders Institute ES, we were not able to obtain a survey.

### **Administrator Interviews**

Administrator interviews were conducted over the phone by Human Factor Inc. Principals were asked to set aside one hour for the interview. Interviews occurred during the spring and summer of 2011. Twenty-three out of 35 principals in our study were interviewed. For five of the schools missing interviews in our sample, Explorer MS, HCZ Promise Academy ES, HCZ Promise Academy MS, Harbour Science and Arts ES, Success Academy ES, and Renaissance ES, we coded survey results from a directly upper or lower school run by the same charter management organization with the same NYC identification code that we had surveys for. For two of the schools in our study, Summit MS and HCZ Promise Academy II ES, we were not able to obtain an interview. For the five of the schools recruited in the Fall of 2011, South Bronx Charter School ES, Mott Haven ES, KIPP Infin-



ity MS, FLACS ES, and Bronx Academy of Promise ES, we were also not able to obtain an interview.

## 2.4 Materials

### Administrator Survey

Below is the original administrator survey.

This is a confidential survey. Your responses will not be individually identifiable, and they will not be disclosed to anyone besides the researchers. The survey has no right or wrong answers. It asks only for your honest experiences and opinions. You can also skip any questions that you do not feel comfortable answering. However, because your responses are central to this research, refusal to answer multiple questions might lead to your school being excluded from the study. Most of the questions are “multiple choice” or “fill in the blank.” As such the survey should only take approximately 25 minutes to complete.

#### *Section 1: Teachers and Staff Development*

1. How many teachers do you have at your school?
2. How many years on average does a teacher stay at your school?
3. How many teachers leave by choice in any given year?
4. How many teachers are not asked to return in any given year?
5. What non-negotiables do you have when hiring a new teacher?
6. What would your teachers say if we asked them how often they receive formal, written feedback based on a classroom visit?
7. What would your teachers say if we asked them how often they receive informal feedback based on something like a 5-minute drop-in?
8. What would your teachers say if we asked them what professional development resources, both formal and informal, are available to them?
9. What would teachers say is the least effective of these resources?
10. In what ways do teachers at your school work together to improve their own performance?
11. How many hours do teachers at your school work each week, including preparation and non-academic activities? 100? 80? 60? 40?
12. What is the highest salary, including bonuses and merit pay, that a teacher has ever earned at your school?

13. Who are your school's two or three most effective teachers at raising students' standardized test scores?
14. Who are your school's two or three least effective teachers at raising students' standardized test scores?
15. Does your school provide teachers with a common template to use in lesson planning?
16. Does your school provide teachers with a common planning period during the day to facilitate lesson planning?
17. Does your school provide teachers with a packaged curriculum that includes lesson plans that teachers can use? What curriculum?
18. In addition to planning and teaching, what other responsibilities do teachers have during the school week? Please select ALL that apply.
  - \_\_\_\_\_ Monitoring hallways
  - \_\_\_\_\_ Assisting in school office
  - \_\_\_\_\_ Monitoring the cafeteria/recess
  - \_\_\_\_\_ Supervising detention
  - \_\_\_\_\_ Assisting with food service
  - \_\_\_\_\_ Organizing school fundraisers
  - \_\_\_\_\_ Mentoring other teachers
  - \_\_\_\_\_ Substituting for absent teachers
  - \_\_\_\_\_ Other
19. How much time does the average teacher spend on these non-instructional duties (per week)?

*Section 2: Instructional Time*

1. How many instructional days are in your school year?
2. How long is the school day for students at your school?
3. During a typical week, approximately how many minutes does the typical student at your school spend on each of the following subjects?
  - \_\_\_\_\_ English Language Arts
  - \_\_\_\_\_ Mathematics
  - \_\_\_\_\_ Science
  - \_\_\_\_\_ History
  - \_\_\_\_\_ General Social Studies

\_\_\_\_\_ Computer Education

\_\_\_\_\_ Foreign Language

\_\_\_\_\_ Art

\_\_\_\_\_ Music

\_\_\_\_\_ Physical Education

4. Does your school offer small-group tutoring?

5. If yes, please discuss the following:

Size of the groups:

Who tutors:

Who qualifies to receive tutoring:

What is taught and for how long:

6. How much time does the typical student at your school spend on homework each night for each of the following grade ranges?

Kindergarten - 2nd:

3rd - 5th:

6th - 8th:

9th - 12th:

7. What percentage of homework assignments do teachers grade and/or provide feedback on?

8. Does your school have a policy regarding the percentage of a course grade that is determined by homework? What percent?

9. Does your school hold a summer school?

10. If yes, please discuss the following:

Who attends:

Who teaches:

What is taught:

11. Does your school offer any non-academic summer programs for students?

12. Does your school help place students in external non-academic summer programs?

### *Section 3: Data Driven Instruction*

1. Does your school use interim assessments?

2. If yes, please discuss the following:

The type of assessment used:

Frequency of assessment:

Whether the assessments are developed internally or externally:

3. Are standardized tests used to assign students to specific courses/programs? What courses/programs?
4. Do teachers meet with a school leader (yourself, another school leader, a department head, etc.) to analyze student data?
5. How often do teachers receive reports on student results?

#### *Section 4: Parent Outreach*

1. If we asked parents at your school how often and for what reason teachers contact them, what would they say?

Academic Performance:

Behavior:

Regular Check-in:

#### *Section 5: Culture*

1. Please rank these school priorities in order from most important (1) to least important (10)

\_\_\_\_\_ A comprehensive approach to the social and emotional needs of the whole child

\_\_\_\_\_ A relentless focus on academic goals and having students meet them

\_\_\_\_\_ Very high expectations for student behavior and discipline

\_\_\_\_\_ Multi-modal, hands-on lessons to appeal to multiple intelligences

\_\_\_\_\_ Use of technology in the classroom to engage students in the curriculum

\_\_\_\_\_ Prioritizing each child's interests and passions in designing a project-based unit

\_\_\_\_\_ Building a student's self-esteem through positive reinforcement

\_\_\_\_\_ A focus on whole language and the writing process to build confidence in literacy

\_\_\_\_\_ Thematic, interdisciplinary curricula to help students construct their own knowledge

\_\_\_\_\_ Ensuring that lessons first systematically develop "basic skills" and second push kids beyond the concrete to develop application and synthesis skills

2. Which best describes your school's disciplinary practices?
  - a. There are specific school-wide rules that all teachers enforce in exactly the same way.
  - b. The rules are the same for each class, but teachers handle each incident on a case by case basis.
  - c. Teachers determine the rules and infractions for their own classrooms.
  
3. How do new students learn the culture of your school?
  - a. There is an explicit orientation period during which new students practice routines and learn school policies.
  - b. We have a strong culture among returning students that new students adapt to quickly, without explicit practice.

For the final eight questions, we would like you to predict what our observers will see when they visit your school. Choose the answer that best fits, even if none perfectly fits.

4. Which best describes what observers will see after the bell rings for class to end?
  - a. Students sit until the teacher dismisses the class; it's a command, not the bell, that activates students.
  - b. Students pack up and begin to leave only when the bell rings; the teacher might issue a few final instructions like "don't forget your homework" as students move to the door.
  - c. Some students pack up a little early; the last 60 seconds of class is not spent on learning activities.
  
5. What will observers see when a student rests his head on a desk during class?
  - a. The teacher will address the behavior immediately.
  - b. The teacher will avoid a confrontation that would disrupt class and will instead talk to the student privately.
  - c. It will depend on the teacher - some will address the behavior immediately while others will avoid a confrontation that would disrupt class and will instead talk to the student privately.
  
6. When students finish a particular task early and are waiting for other students to finish, which of the following are student behaviors that a visitor would observe? (Please check all that apply.)
  - a. Students do homework for another class.
  - b. Students sit quietly and rest.
  - c. Students shift to a teacher-prescribed new task.
  - d. Students chat quietly with each other.

- e. Other
- 
7. When a teacher is giving direct instruction, an observer will see:
    - a. All students sitting up straight and tracking the teacher with their eyes
    - b. Some students might be slouching, but all students will be paying attention.
    - c. Roughly thirds: one third will be sitting up and paying attention, another third will be slouching but focused, and another third will be distracted or off-task
  
  8. Which best describes what observers will see on student desks?
    - a. Desks will only contain items that are necessary for that class or subject, such as a pencil, binder, and relevant textbook.
    - b. Desks will contain relevant class material as well as books from other classes, random papers, folders, markers, etc.
  
  9. Which best describes what observers will hear in the hallways?
    - a. Silence
    - b. Quiet chatting
    - c. Some chatting, some shouting
    - d. Loud and boisterous exchanges
  
  10. Which best describes what observers will see at the beginning of class?
    - a. Teachers start their classes with the learning activity that they deem most effective.
    - b. Students will be quietly preparing their materials for class and starting a Do-Now activity.
    - c. All students will be silently working on a Do-Now activity when the bell rings.
  
  11. Which best describes what observers will see in terms of placement of bags or backpacks?
    - a. All backpacks will consistently be in one place (all under chairs, all on the backs of chairs) or there will be no backpacks in the classroom.
    - b. Backpacks are out of the way, but there are no set policies on where they should be placed.
    - c. Some backpacks will be on desks.

### **Administrator Interview Script**

Below is the original interview script and how we code the questions. Possible coded answers are the most popular answers given by principals and/or the answers relevant to the study. When using the dataset, one must keep in mind the following: 1 = "Yes," 0 = "No," "" (blank) = cannot

confirm or deny based on administrator's answer.

Introduction: Some questions may seem redundant to you. Rather than deciding for myself that I should skip a question that I feel you may have already answered, I will give you the opportunity to add to your answer or skip the question altogether.

## *Section 1: Human Resource Strategy*

### *1.1 Selection*

1. If I am an applicant for one of your teacher position vacancies, what specific steps would I need to go through in order to be hired by your school?

Possible Probes:

\* Sample Lessons (if used but not answered in detail): "Who are the sample lessons given in front of (i.e. teachers, students)?"

\* Interview specifics (if not addressed): "How many interviews (interview rounds) does a candidate have to participate in? Are they individual interviews or group interviews? Who is involved in the interviews (current teachers, external consultants, etc?)"

Group interview used in hiring

One-on-one interview used in hiring

Mock lesson used in hiring

Essay/personal statement used in hiring

Resume used in hiring

Phone interview used in hiring

Reference check used in hiring

School visit used in hiring

Response to feedback in mock lesson used in hiring

2. Where did you post the job? (not in original script but often asked)

Posting board used to disseminate job posting

School website used to disseminate job posting

Other sources used to disseminate job posting

3. Which step in the process you just described gives you the best information about whether or not to hire someone?

All parts of the hiring process are equally important

Group interview gives most information in hiring process

One-on-one interview gives most information in hiring process

Mock lesson gives most information in hiring process

Essay/personal statement gives most information in hiring process

Resume gives most information in hiring process

Phone interview gives most information in hiring process

Reference check gives most information in hiring process

School visit gives most information in hiring process

Response to feedback in mock lesson gives most information in hiring process

4. Which step is least helpful to you or your school when making hiring decisions?

Possible Probes:

\* If principal feels all steps are “helpful” acknowledge but ask “if a step had to be removed because of time or resource constraints, which one would it be?”

Group interview gives least information in hiring process

One-on-one interview gives least information in hiring process

Mock lesson gives least information in hiring process

Essay/personal statement gives least information in hiring process

Resume gives least information in hiring process

Phone interview gives least information in hiring process

Reference check gives least information in hiring process

Response to feedback in mock lesson gives least information in hiring process

### *1.2 Training and Professional Development*

5. If a visiting research team interviewed teachers at your school, what current activities and strategies would the teachers say help them to become better teachers?

Teachers would say feedback from informal observation is a current practice that helps them

Teachers would say feedback from formal observation is a current practice that helps them

Teachers would say review of lesson plans is a current practice that helps them

Teachers would say coaching is a current practice that helps them

Teachers would say summer workshop is a current practice that helps them

Teachers would say collaborative work in lesson planning is a current practice that helps them

Teachers would say collaborative work in data driven instruction is a current practice that helps them



Teachers would say inquiry groups is a current practice that helps them

Teachers would say visits to other schools is a current practice that helps them

Teachers would say taxonomy teaching techniques is a current practice that helps them

Teachers would say outside professional development is a current practice that helps them

Teachers would say internal professional development is a current practice that helps them

Teachers would say demo lessons is a current practice that helps them

6. Of the strategies and activities you mentioned, which one is the most effective for improving teacher performance?

Feedback from informal observation is the current practice that most helps teachers develop

Feedback from formal observation is the current practice that most helps teachers develop

Review of lesson plans is the current practice that most helps teachers develop

Coaching is the current practice that most helps teachers develop

Summer workshop is the current practice that most helps teachers develop

Collaborative work in lesson planning is the current practice that most helps teachers develop

Collaborative work in data driven instruction is the current practice that most helps teachers develop

Inquiry groups is the current practice that most helps teachers develop

Visits to other schools is the current practice that most helps teachers develop

Taxonomy teaching techniques is the current practice that most helps teachers develop

Outside professional development is the current practice that most helps teachers develop

Internal professional development is the current practice that most helps teachers develop

Demo lessons is the current practice that most helps teachers develop

7. Which is the least effective?

Feedback from informal observation is the current practice that least helps teachers develop

Feedback from formal observation is the current practice that least helps teachers develop

Review of lesson plans is the current practice that least helps teachers develop

Coaching is the current practice that least helps teachers develop

Summer workshop is the current practice that least helps teachers develop

Collaborative work in lesson planning is the current practice that least helps teachers develop

Collaborative work in data driven instruction is the current practice that least helps teachers develop

Inquiry groups is the current practice that least helps teachers develop

Visits to other schools is the current practice that least helps teachers develop  
Taxonomy teaching techniques is the current practice that least helps teachers develop  
Outside professional development is the current practice that least helps teachers develop  
Internal professional development is the current practice that least helps teachers develop  
Demo lessons is the current practice that least helps teachers develop

### *1.3 Performance Management*

8. When you evaluate your teachers, what do you measure and how do you measure it?

Possible Probes:

- \* Does a teacher receive a score or rating in specific categories? What are the categories?
- \* Do you specifically use test score performance in your evaluation of teachers? If so how?

(a) Evaluations Format

- Teachers self-assess as part of an evaluation
- Teachers set individual goals as part of an evaluation
- Schools perform formal mid-year written evaluations
- Schools perform formal mid-year in-person evaluations
- Schools perform formal year-end written evaluations
- Schools perform formal year-end in-person evaluations
- Schools provide written feedback for informal observations
- Schools provide in-person feedback for informal observations

(b) Evaluation Content

- Schools look for planning/preparation in evaluations
- Schools look for classroom management in evaluations
- Schools look for delivery of instruction in evaluations
- Schools look for assessments/follow-up in evaluations
- Schools look for family/community outreach in evaluations
- Schools look for adherence to school culture in evaluations
- Schools look for other responsibilities in evaluations

(c) Student Performance

- Student performance directly factors into teacher evaluation

(d) Peer Evaluations

- Teachers receive feedback from their peers in their evaluations

(e) Other Feedback

- Teachers received feedback from people other than administrators or teachers in the evaluations

9. How are the results of evaluations communicated to teachers?

Possible Probes:

\* How soon are results communicated after an evaluation is performed?

\* Are they communicated formally (in writing) or informally (i.e. pulling them aside after class)

(a) Formal Evaluations

Results of a formal evaluation communicated to teachers within a day

Results of a formal evaluation communicated to teachers within 48 hours

Results of a formal evaluation communicated to teachers within a week

Results of a formal evaluation communicated to teachers within more than a week

(b) Informal Evaluations

Results of a informal evaluation communicated to teachers within a day

Results of a informal evaluation communicated to teachers within 48 hours

Results of a informal evaluation communicated to teachers within a week

Results of a informal evaluation communicated to teachers within more than a week

10. What is your school's response when a teacher has a poor evaluation?

When teachers have a poor evaluation an action plan (broadly speaking) is created

When teachers have a poor evaluation coaching is provided

When teachers have a poor evaluation in classroom support is provided

When teachers have a poor evaluation additional observations are provided

When teachers have a poor evaluation additional they are asked to visit other classrooms

When teachers have a poor evaluation lessons are modeled for them with their students

When teachers have a poor evaluation other PD is provided

11. What criteria do you use to decide whether to invite a teacher to return the following year or to terminate employment?

Review system referred to when deciding to invite a teacher to return

Data referred to when deciding to invite a teacher to return

Student learning referred to when deciding to invite a teacher to return

Corporal punishment/other inappropriate teacher actions referred to when deciding to invite a teacher to return

Union/union rules referred to when deciding to invite a teacher to return

12. Is there bonus pay for teachers? For what specific reasons can a teacher earn a bonus, and what is the amount of the bonus?

Possible Probes:

\* If principal gives bonuses, and it is not obvious, ask “how is the bonus actually calculated?”

\* If principal uses gains or value-add measures, ask “how do calculate the gains and how does that translate into a bonus?”

- (a) Bonus Pay Exists

There is bonus pay for teachers

- (b) Bonus and School Performance

Part of teacher bonus is based on overall school performance

- (c) Bonus and Grade-level Performance

Part of teacher bonus is based on grade-level performance

- (d) Bonus and Individual Student Performance

Part of teacher bonus is based on individual teacher’s student performance

- (e) Bonus Timing

Teacher bonus given at the beginning of the year

Teacher bonus given at the end of the year

Teacher bonus given at a time other than the beginning or end of the year

- (f) Bonus Percent

Teacher bonus given is a percentage range

Principal refuses to answer if bonus given is a percentage range

- (g) Minimum Bonus

Minimum percentage of bonus given to teachers

- (h) Maximum Bonus

Maximum percentage of bonus given to teachers

- (i) Bonus Range

The teacher bonus is a set range

- (j) Minimum Range

Minimum amount of the set range teacher bonus

- (k) Maximum Range

Maximum amount of the set range teacher bonus

13. What is your school’s response if a teacher’s students are not learning the material (or progressing through the curriculum) at the rate you expect?

- (a) Response to not learning
  - When students are not learning, school tried to get at reason why this has occurred
  - When students are not learning, school meets with teacher
  - When students are not learning, school changes school policy/curriculum
  - When students are not learning, school creates action plan for teacher
- (b) Focus of Response
  - Principal's response to students not learning sounds more teacher focused
  - Principal's response to students not learning sounds more school focused
  - Principal's response to students not learning sounds both teacher and school focused
  - Principal's response to students not learning sounds neither teacher nor school focused

14. What is your school's response when a teacher's students score below expectations on the state test?

Note: Make sure principal is not answering what happens when a single student is not learning the material or performing well on tests.

- (a) Response to below performance
  - When students are scoring below expectations, school tried to get at reason why this has occurred
  - When students are scoring below expectations, school meets with teacher
  - When students are scoring below expectations, school changes school policy/curriculum
  - When students are scoring below expectations, school creates action plan for teacher
- (b) Focus of response
  - Principal's response to students scoring below expectations sounds more teacher focused
  - Principal's response to students scoring below expectations sounds more school focused
  - Principal's response to students scoring below expectations sounds neither teacher nor school focused

#### *1.4 Support Services*

15. When we ask teachers what the administration could do to help them teach more effectively, what are they likely to say?

Note: They may feel they answered this already, but the earlier question is about current activities not about what could be done differently.

Principal believes teachers would ask for PD to help teach more effectively

Principal believes teachers would ask for help with students with special needs to help teach more effectively

Principal believes teachers would ask for increased staffing to help teach more effectively

Principal believes teachers would ask for more feedback to help teach more effectively

Principal believes teachers would ask for help with discipline/behavior management to help teach more effectively

Principal believes teachers would ask for smaller classes to help teach more effectively

Principal believes teachers would ask for modeled lessons to help teach more effectively

### *1.5 Retention*

16. What strategies do you use to retain your best teachers?

Teachers retained using recognition

Teachers retained using compensation

Teachers retained using support

Teachers retained using leadership opportunities as a teacher

Teachers retained using leadership opportunities outside classroom

17. What percent of teachers are let go each year? For what reasons are they let go?

Possible Probe:

If a principal says teachers are let go for performance reasons, ask “Is there a specific score or measure that determines if performance is poor enough to let a teacher go, for instance are teachers let go if a certain percentage of their students are not proficient on state exams?”

Note: If principal talks about why teachers leave, redirect to answer why they are let go.

Percent of teachers let go each year

Teachers let go due to classroom management issues

Teachers let go due to no improvement in teacher performance

Teachers let go due to no buy-in to the school program

Teachers let go due to unprofessional actions

## *Section 2: Time on Task*

### *2.1 Tutoring*

18. We ask you specific questions about tutoring on the paper survey that you have been asked to complete (I’m not sure if you’ve seen that yet or not). But for the interview we are more interested in your school’s philosophy about tutoring and why you chose your specific approach as it relates to implementation. Can you speak to that?

Possible Probes:

\* For philosophy we are interested in who, what, and the why (who gets tutored, what subjects, why - everybody, those who are struggling).

\* For implementation, we are interested in choices about staffing, group size, frequency, length of session.

(a) Tutoring Target Group

All students get tutored

Underperforming students get tutored

High performing students get tutored

Tutoring occurs during the day

(b) Tutoring Time

Tutoring occurs after school

Students get pulled from class for tutoring

(c) Tutoring Timing

Students get tutored in ELA

Students get tutored in math

Students get tutored in foreign language

Students get tutored in science

Students get tutored in a subject other than ELA, math, foreign language and science

(d) Tutoring Criteria

Subjects students are tutored based on overall grade or school performance

(e) Tutoring Staff

Classroom teacher tutor

Specific permanent staff tutors

Outside temporary staff tutors

(f) Tutoring Group Size

Average tutoring group size is 1-2

Average tutoring group size is 3-6

Average tutoring group size is 7-10

Average tutoring group size is more than 10

(g) Tutoring Frequency

The number of times a week students are tutored

(h) Tutoring Session Length

Average tutoring session is less than 45 minutes long

Average tutoring session is 45 minutes to 70 minutes long

Average tutoring session is more than 70 minutes long

## 2.2 Homework

19. What happens to a student who does not turn in a satisfactory homework assignment?

When a student does not turn in satisfactory homework, finding the reason behind this is discussed

When a student does not turn in satisfactory homework, parents are called

When a student does not turn in satisfactory homework, students simply get a 0 with any effort at making students re-do it

When a student does not turn in satisfactory homework, there is homework detention

When a student does not turn in satisfactory homework, there is a specific school-wide policy to deal with this

When a student does not turn in satisfactory homework, tutoring is provided

20. What do you do to insure that students complete their homework?

Parent engagement/home environment are discussed when implementing ways to ensure students complete homework

Parents are made aware of HW through a notebook as a way to ensure students complete homework

Accountability/expectations are discussed as a way to ensure that students complete homework

## Section 3: Data Oriented Instruction

21. Please discuss how you break down interim and other internal assessment data. You may want to discuss topics such as:

Whether you focus on results by question, standard, or subject matter

Whether you focus on student, class, teacher, or school-level results

Who analyzes the results of interim assessments (i.e. teachers, instructional leaders, a computer program, etc.)?

Once you break down the data, what do you do with it?

Possible Probes:

\* Can you discuss how data from your assessments are used in the classroom and in supplemental instruction?

\* If you haven't already, can you please discuss what data each teacher is given and what training they are given to interpret it.



(a) Assessment Data Aggregation

- Assessment data are broken down by question
- Assessment data are broken down by standard
- Assessment data are broken down by subject
- Assessment data are aggregated at the student level
- Assessment data are aggregated at the class level
- Assessment data are aggregated at the teacher level
- Assessment data are aggregated at the grade level
- Assessment data are aggregated at the school level
- Assessment data are aggregated at demographic subgroups
- Administration analyzes the assessment data
- Teachers analyze the assessment data
- The school has a computer program that analyzes the data
- Teachers are given training to analyze the data

(b) Assessment Use

- Teachers present the assessment data
- Assessment data used to inform tutoring groups
- Assessment data used to decide who needs remediation
- Assessment data used to inform broad-based future lesson plans/instruction
- Assessment data used to set individual goals and academic plans for students
- Time is set aside to go over concepts students had trouble with

*Section 4: Wrap-Around Services*

22. Does your school offer any non-academic wrap-around services to students and/or their families (e.g., medical, dental, psychological health, or sexual health services)?
- School informs parents of wrap-around services offered in some way
  - Schools offer wrap-around services related to parents
  - Schools offer wrap-around services related to health services
  - Schools mention social worker when asked about wrap-around services

*Section 5: Culture*

I am now going to ask you a series of questions related to how your school responds to various student behaviors. We expect that responses to some of these questions may be very similar. Please feel free to indicate as such in your answer.

I am going to ask you about your school's response when a student:

23. Verbally abuses a teacher or staff member?

When a student abuses a teacher, the student is removed from class immediately

When a student abuses a teacher, the student is usually suspended

When a student abuses a teacher, the student is usually sent to the dean's area

When a student abuses a teacher, there is a due process system that is referred to

When a student abuses a teacher, there is a system of rewards and penalties that is referred to

When a student abuses a teacher, there is a system of mediation that is discussed

24. Verbally abuses another student?

When a student verbally abuses another student, the student's parents are involved

When a student verbally abuses another student, the student is removed from class immediately

When a student verbally abuses another student, the student is usually suspended

When a student verbally abuses another student, the student is usually sent to the dean's area

When a student verbally abuses another student, there is a due process system that is referred to

When a student verbally abuses another student, there is a system of rewards and penalties that is referred to

When a student verbally abuses another student, there is a system of mediation that is discussed

25. Physically strikes a teacher or staff member?

When a student strikes a staff member, the student's parents are involved

When a student strikes a staff member, the student is removed from class immediately

When a student strikes a staff member, the student is usually suspended

When a student strikes a staff member, the student is usually sent to the dean's area

When a student strikes a staff member, there is a due process system that is referred to

When a student strikes a staff member, there is a system of rewards and penalties that is referred to

When a student strikes a staff member, there is a system of mediation that is discussed

26. Physically strikes another student?

When a student strikes another student, the student's parents are involved

When a student strikes another student, the student is removed from class immediately

When a student strikes another student, the student is usually suspended

When a student strikes another student, the student is usually sent to the dean's area

When a student strikes another student, there is a due process system that is referred to

When a student strikes another student, there is a system of rewards and penalties that is referred to

When a student strikes another student, there is a system of mediation that is discussed

And now I will ask you a few questions about your school's response to other student behaviors:

27. What is your school's response when a student is disruptive in class to the point that the lesson cannot continue?

When a student is disruptive in class to the point the lesson cannot continue, the student's parents are involved

When a student is disruptive in class to the point the lesson cannot continue, this is dealt with within the classroom

When a student is disruptive in class to the point the lesson cannot continue, the student is usually suspended

When a student is disruptive in class to the point the lesson cannot continue, the student is usually sent to the dean's area

When a student is disruptive in class to the point the lesson cannot continue, there is a system of rewards and penalties that is referred to

When a student is disruptive in class to the point the lesson cannot continue, there is a system of mediation that is discussed

28. What is your school's response when a student suddenly performs much worse on interim assessments or homework? What system do you have in place to identify these students?

When a student suddenly starts performing much worse on interim assessments or homework, a parent is involved

When a student suddenly starts performing much worse on interim assessments or homework, the student re-takes the test

When a student suddenly starts performing much worse on interim assessments or homework, the school looks into potential issues at home

29. What is your school's response if a student is regularly absent?

When a student is regularly absent, the schools has some kind of intervention specialist

The school calls home for every absence

Home visits and/or family meetings

30. If we asked students to describe the school's approach to discipline and behavior expectations, what would they say?

Students would discuss summer school / retention when asked about the school's approach to discipline/behavior

Students would mention something about strictness when asked about school's approach to discipline/behavior

Students would mention something about expectations being fair when asked about school's approach to discipline/behavior

31. If research showed that computer instruction, rather than teachers, actually helped the students perform better on tests, would you replace teachers with computers? (not in original script but asked)

If research showed computer instruction, not teachers, help students perform better on test, the principal would switch to computers

*Section 6: What wouldn't you do?*

Thank you for answering all of the questions so far.

31. We have asked you quite a few questions, and thank you for your patience. For our final question we want to know if there is anything that you would do differently to improve the performance of your school that you have not already stated. What is preventing you from implementing those strategies?

There is something that would be done differently to improve performance

To some extent there is something that would be done differently to improve performance

There is not something that would be done differently to improve performance

Paying teachers more discussed as a way to improve performance

Increased staffing discussed as a way to improve performance

Help parents more discussed as a way to improve performance

Better PD discussed as a way to improve performance

**Teacher Interview Script**

This is the script used to interview teachers and how we code the answers. Numbered questions are main questions, and sub-questions are denoted by letters. We code all answers that apply to a teacher's response, with 1 equal to "Yes," 0 equal to "No," and blank equal to "cannot confirm or deny based on the teacher answer."

1. What does the school do to help you develop lesson plans?

Work with assistant principal

Collaborate with colleagues

Professional Development at the beginning of the year

Grade level team meetings

Department meetings

Professional Development throughout the year

Given copies of exemplary lesson plans

Work with curriculum specialist

Nothing

(a) Does the school give you any templates to work with?

Yes

Yes and required to use the templates

A copy of a curriculum guide (NY state standards)

Copies of exemplary lesson plans (not templates)

Forms with objectives and standards (not templates)

(b) Do you work with a coach or other administrator to prepare your lesson plans?

Yes

Yes, when I first started

No, but it is available

No

(c) Do you work with teachers to prepare lesson plans?

Yes

Formally

Informally

No

2. What kind of regular teacher collaboration related to instructional planning and practice happens at your school?

Regular meetings and PD

Common preps

Co-teachers in the room

Specialized co-teachers for math and/or literacy

Informal sharing amongst teachers

(a) Do teachers review student work together?

Yes

Yes, formally

Yes, to decide what needs to be re-taught

Yes, to keep grading consistent

Yes, informally

No

(b) What specific steps, if any, are you expected to take as a result of meeting with other teachers?

Yes, teacher is expected to take specific steps

Yes, teacher is expected to take specific steps in our teaching practice

Yes, teacher is expected to perform specific reflections, reports, collection of materials

Only informal steps

None

3. What opportunities are available to you to help you improve your teaching performance?

Someone modeling lessons throughout the year (teacher observes)

Common preps

Meetings with administration

Regular workshops with specialists throughout the year

Regular internal PD

Regular external PD

Summer workshops

Informal sharing amongst teachers

(a) What professional development opportunities are available to you at your school?

Regular Workshops at school

PD during the summer before school starts

External courses or seminars

None

(b) Have you experienced particular challenges that you needed help with? For example around instruction or behavior management? If so, what kind of support did you get?

Behavior Management was a challenge

Instruction was a challenge

Issue with another teacher was a challenge

Went to administration for advice as support for a challenge

Went to colleagues / committee / non-admin school staff for support with challenge

Informal advice from other teachers is given as support for a challenge

No support requested for challenge

4. How and how often do you receive feedback on your performance?

Summary of feedback in 8 words or less

(a) Does the principal give you formal feedback?

Yes

Yes, once a year

Yes, twice a year.

Yes, more than twice a year

No

(b) Do you get formal feedback from your peers?

Yes

Yes, formally

Yes, formally, once a month or more

Yes, formally, once every few months

Yes, informally

No

(c) Do you receive feedback from your students?

Yes

Yes, formally

Yes, formally, once a month or more

Yes, formally, once every few months

Yes, informally

No

5. What can the school do better?

Improve professional development

Improve curriculum

Improve working conditions for teachers (ex. shorter hours)

Improve course offerings

Improve school culture/behavior management

Improve staff communication

- (a) Could the school do anything better to support teachers?
    - More feedback given by administration
    - Improve professional development
    - Improve communication
    - Give more time to collaborate with other teachers
    - No, nothing that is not already being done
  - (b) Could the school do anything better to support first-year teachers?
    - More modeling
    - Dedicated professional development
    - Mentoring program
    - More positive reinforcement
    - No, nothing that is not already being done
  - (c) Could the school do anything better to support struggling veteran teachers?
    - More modeling
    - Dedicated professional development
    - Mentoring program
    - More positive reinforcement
    - No, nothing that is not already being done
  - (d) Could the school do anything better to support kids?
    - Better counseling services
    - Increased parent communication
    - More physical activity for the kids
    - More enrichment activities (test prep, etc.)
    - Improve school culture
    - Better course offering
    - More technology (i.e. smartboards, etc.)
    - No, nothing that is not already being done
  - (e) Could the school do anything better to communicate with parents?
    - Yes, update communication technology
    - Yes, more activities for parents
    - No, nothing that is not already being done
6. What kind of standard routines or instructional practices does the school expect teachers to follow at your school? For example, is there a standard school-wide routine for how to begin a class or end a class?
- Beginning class



End of Class

Beginning of school day

End of school day

Classroom discipline system

Classroom awards system

Assessment system

Attendance system

7. What specifically do you have to do the first five minutes of the day or to begin a lesson?

Review lesson's objective

Students write down lesson's objective

Students turn in HW

Do-Now

Review of last class

8. In general, what percent of students in your class are on task in the first five minutes of class?

- (a) Why do you think the answer is not 100

Teacher-centered factors

Student-centered factors

School-centered factors

Family/Community-centered factors

List factor in 3 words or less

9. In general, what percent of students will be able to explain what you covered in a given day?

- (a) Could you explain why you think it's not 100

Teacher-centered factors

Student-centered factors

School-centered factors

Family/Community-centered factors

Content-centered factors

Pedagogy-centered factors

List factor in 3 words or less

10. How many hours are you expected to work each week? This includes preparation and activities beyond the school day.

11. Do you believe the expectation of work hours is appropriate for a teacher that wants to be successful? Why or why not?

Yes

Yes, especially at the beginning

Yes, but this is not sustainable

Yes, because the necessary support is provided

Yes, because teaching requires a lot of work

No

12. Where did these time expectations come from? Did you assume them from the culture, or did somebody else explain them to you?

The expectations are self-generated

The expectations are assumed from culture

The expectations are formally stated

13. Do you think a school can be successful at raising the achievement of struggling kids where there is a strong teachers union? Why or why not?

Yes

Yes, unionization doesn't affect work that needs to be done

Yes, unionization provides support

Yes, unionization reduces turnover

No, unionization allows bad teachers to remain

No, unionization reduces freedom

No, unionization reduces effort

Unionization gets in the way of helping kids, but teacher is not sure how

14. Does your school have a system of pay for performance, where teachers are rewarded for their students' state test scores?

Yes

No

15. Do you think a system like that would increase student achievement? Why or why not?

Yes

Yes, and in a big way

Yes, in some way

Yes, in a small way

Yes, but it depends on the teacher

No

16. We would like you to write down two or three teachers in your school who are the best at raising standardized test scores. You can include yourself. What specifically do these teachers do that makes them successful?

Natural Ability

Hard work

Positive Thinking/Belief in students

High expectations of students

Teaching Experience

Academic background

Knowledge of state test

Good classroom management

Positive relationships with students

Good curriculum

Good pedagogy

Good assessment system

- (a) We would like you to write down the names of two or three teachers in your school who don't seem to be able to raise test scores, again you can include yourself. What specifically do those teachers do or do not do that keeps them from being successful?

Poor natural ability

No hard work

Negative Thinking/Negative belief in students

Low/unclear expectations of students

Minimal teaching experience

Weak academic background

Weak knowledge of state test

Poor classroom management

Negative relationships with students

Poor curriculum

Poor pedagogy

Poor assessment system

## Student Interview Script

This is the script used to interview students and we code the answers. Numbered questions are main questions, and sub-questions are denoted by letters. We code all answers that apply to a student's response, with 1 equal to Yes, 0 equal to no, and blank equal to "cannot confirm or deny based on the student answer."

1. What class, or classes, did you have this morning? What did you talk about?

Subject:

- (a) Did you learn anything new that you didn't know already?

Yes

No

- (b) If so, what did you learn?

5 word summary of subject

2. When there is something you don't understand in class, what do you do?

- (a) Do you ask the teacher during class?

Yes

No

- (b) Can student name a time that they asked during class?

Yes

No

- (c) Do you ask the teacher after class?

Yes

No

- (d) Can student name a time that they asked after class?

Yes

No

- (e) Do you ask a friend?

Yes

No

- (f) Can student name a time that they asked a friend?

Yes

No

- (g) Do you wait until you go home and ask someone there?

Yes

No

(h) Can student name a time that they went home and asked someone there?

Yes

No

3. When you get stuck on a homework question and you're at home, what do you do?

Students mention asking a sibling

Students mention asking a parent/guardian

Students mention not doing anything until the next day

(a) Do you call someone?

Yes

No

(b) If yes, can you tell me about a time?

Yes

No

(c) Do you look things up on the computer?

Yes

No

(d) If yes, can you tell me about a time?

Yes

No

4. What happens in class if you don't turn in your homework? (What happens to students who don't turn in their homework?)

No credit

They're given a chance to turn it in later for full credit

They're given a chance to turn it in later for reduced credit

They're forced to do homework during lunch or some other "free" period

Detention

Demerits on some point system

Parents called

5. What happens in school if you skip class? (What happens to students who skip class?)

Go to dean's area or some sort of principal's office

Detention

Demerits on some point system

Suspension

Talk to some kind of counselor

Recess taken away

Referral

Parents called

6. What happens if you talk back in class? (What happens to students who talk back?)

Go to dean's area or some sort of principal's office

Detention

Demerits on some point system

Suspension

Talk to some kind of counselor

Recess taken away

Referral

Parents called

7. What happens if you talk to your friends in class? (What happens to students who talk to their friends in class?)

Go to dean's area or some sort of principal's office

Detention

Demerits on some point system

Suspension

Talk to some kind of counselor

Recess taken away

Referral

Parents called

8. Is it the same in all classes or can you get away with more with some teachers?

Yes

No

9. If I offered you \$1000 dollars to get an A in each of your classes, how would you do it?

Study

Do homework more carefully

Read books

- Pay attention in class
- Test-taking strategies like checking answers
- Ask the teacher for help
- No TV, video games, etc
10. Are those different things than you do now?
- Yes
- No
11. If no, would you do anything different to get \$1000 dollars for an A?
- Study
- Do homework more carefully
- Read books
- Pay attention in class
- Test-taking strategies like checking answers
- Ask the teacher for help
- No TV, video games, etc
12. What percent/number of your friends do you think will graduate from college - (All of them? A lot of them? Some of them? Just a few of them? Or none of them?)
- Percent of friends in same school
- (a) What about your friends in the neighborhood who don't go here?
- Percent of friends in neighborhood
13. On this paper, write about the two to three best teachers in your school. Without saying their names, tell me what is it that makes them the best?
- Personality
- Perseverance in helping students
- Knowledge
- Ability to explain things
- Easy grading
- Easy on discipline
- Specific Activities
- Tough grading
- Tough in terms of discipline
- Always the same activities

14. On this paper, write about the two to three worst teachers in your school. Without saying their names, tell me what is it that makes them the worst?

Personality

Lack of Perseverance in helping students

Lack of knowledge

Inability to explain things

Easy grading

Easy on discipline

Specific Activities

Tough grading

Tough in terms of discipline

Always the same activities

### **Lesson Plan Coding Rubric**

This is the script used to code lesson plans submitted by schools. Schools were asked to submit one lesson plan for math and one lesson plan for ELA for every grade level in their school. We code one math and ELA lesson plan for each school, attempting to code to most complete lesson plan submitted for each using the rubric below. We code 1 where the characteristic is present in the lesson plan, 0 where it is not, and blank where it is ambiguous.

1. School Name

2. School DBN

3. Grade level

4. School type (ES, MS)

5. Content area

6. Notes

7. Format

Lesson Plan is clearly divided into sections

Lesson Plan includes an objective

Lesson Plan includes Essential Questions

Lesson Plan includes a Do-Now

Lesson Plan includes key words/vocabulary

Lesson plan includes materials needed



Lesson plan includes a hook/introductory set/motivation set

Lesson Plan includes main/learning activities

Lesson Plan incorporates checks for understanding (CFU)

Lesson Plan includes an assessment

Lesson Plan includes a closing activity

Lesson Plan includes time needed for each/key part(s) of lesson

Lesson Plan includes homework

Lesson Plan includes teacher reflection on lesson

Lesson Plan follows standardized school/district format

8. Objective-If there are multiple objectives - pick most prominent/important one for the lesson.  
If all equally prominent pick the best written one.

Objective states specifically what students will be able to do at end of lesson

Objective is written in SWBAT/YWBAT or similar format

Objective is measurable

Objective is below the appropriate grade according to state standards

Objective is at the appropriate grade according to state standards

Objective is above the appropriate grade according to state standards

Lesson explicitly references state standards

Objective refers to other standards (ex. Exit Exam standards, habits of work standards)

Highest Bloom's Taxonomy Level of the objective (1-6)

Number of objectives for the lesson

9. Essential Question/connection to larger unit

Essential question aligns with objective

Essential question gives motivation for the entire lesson

Essential question explicitly states real-world connection/relevance

Essential question use previous learning from class

Essential question use student prior knowledge

Essential question in open-ended

Essential question requires the use of more than one age appropriate skill

10. Do-Now

Do-Now is aligned with the objective

Do-Now references previous learning and/or prior knowledge

Reading required to complete Do-Now

Writing required to complete Do-Now

Speaking required to complete Do-Now

Problem solving in Do-Now

Listening required to complete Do-Now

Thinking required to complete Do-Now

Time is made to review the Do-Now after it is completed

Highest Bloom's Taxonomy Level of the Do-Now (1-6)

11. Key words/vocabulary

Number of key words stated

Key words are referred to in lesson

Students are required to record key words (in a journal, toolkit, etc.)

12. Materials Needed

Materials needed includes textbook

Materials needed includes worksheet/handouts

Materials needed includes other books (novel, etc.)

Materials needed includes manipulatives

Materials needed includes a calculator

Materials needed includes a computer

Materials needed includes non-computer technology (smart board, clickers, etc.)

Materials needed includes arts and crafts material

Materials needed includes food

13. "Hook"/Introductory set/Motivation Set

Hook aligns with objective

Hook explicitly states real-world connection/relevance

Hook connects to student's prior knowledge

Reading required to complete Hook

Writing required to complete Hook

Speaking required to complete Hook

Problem solving in Hook

Listening required to complete Hook

Thinking required to complete Hook

Highest Bloom's Taxonomy Level of the Hook (1-6)

14. Main/Learning activities

\*\*\*\*General\*\*\*\*

Number of learning activities in the lesson

All learning activities are aligned with objective

Learning activities include introduction to new material

Learning activities include guided practice

Learning activities include independent practice

Student actions explicitly stated in learning activities

Teacher actions explicitly stated in learning activities

Learning activities that are teacher-driven include explicit scripting

Highest Bloom's Taxonomy Level of the learning activity (1-6)

\*\*\*\*Pedagogy: Differentiation, Scaffolding, Grouping\*\*\*\*

Learning activities provide scaffolding

Learning activities practice same content in multiple ways

Learning activities explicitly include differentiation strategy (not necessarily in those words)

Differentiation for LEP students

Differentiation for SPED students

Learning activities have remediation

Learning activities have extension

Learning activities refer to using TA/aide

Learning activities refer to pull-out for differentiation

Learning activities allow for student choice

Learning activities include grouping strategy

Students work individually on learning activities

Students work in pairs on learning activities

Students work in groups on learning activities

Students work as a whole class on learning activities

\*\*\*\*Content: Activity Detail\*\*\*\*

Reading required to complete Learning Activities

Writing required to complete Learning Activities

Speaking required to complete Learning Activities

Problem solving required to complete Learning Activities

Listening required to complete Learning Activities

Thinking required to complete Learning Activities

Learning activities include lecture

Learning activities include group work

Learning activities include games

Learning activities include puzzles

Learning activities includes use on manipulatives

Learning activities include worksheets/textbook work

Learning activities include stations

Learning activities include student presentations

Teacher use of computer technology

Student use of computer technology

Learning activities explicitly state behavioral expectations

Time is made to review the learning activity after it is completed

15. Checks For Understanding (CFU)

Number of CFUs stated in lesson plan (not including a final lesson assessment)

CFUs include a way for teacher to provide students feedback on work

Teacher has multiple options for lesson plan depending on outcomes of CFU

CFUs are structured such that all students must participate

Students are graded on CFUs

Reading required to complete CFU

Writing required to complete CFU

Speaking required to complete CFU

Problem solving in CFU

Listening required to complete CFU

Thinking required to complete CFU

16. Assessment

Assessment aligns with objective

Assessments are structured such that all students can demonstrate mastery of objective

Students self-assess mastery of objective

Students are graded on assessment

Multiple forms of assessment given to students

Students have choice in form of assessment

Students have choice in content of assessment

Assessment is differentiated according to skill level

Assessments accommodate LEP students

Assessments accommodate for SPED students

Reading required to complete assessment

Writing required to complete assessment

Speaking required to complete assessment

Problem solving in assessment

Listening required to complete assessment

Thinking required to complete assessment

Assessment is completed individually

Assessment is completed in groups

Assessment is completed as a whole class

17. Closing activity

Assessment is the closing activity

Closing activity refers to introductory activity in some way

Students are asked to state motivation for lesson

Closing activity foreshadows next class

18. Time needed

Length of class (in minutes)

Each part of the lesson is assigned a time value

Shortest increment of time accounted for (in minutes)

Longest increment of time accounted for (in minutes)

19. Homework

Homework is aligned with the objective

Homework is assigned from textbook

Homework is started in class

Reading required to complete homework

Writing required to complete homework

Speaking required to complete homework

Problem solving in homework

Listening required to complete homework

Thinking required to complete homework

20. Teacher Reflection on lesson

Number of sentences written for reflection

Teacher indicates changes for next time this lesson is done

Teacher indicates changes needed for instruction to this group of students

Teacher indicates what from this lesson needs to be re-taught

### 3 Appendix C: School Lottery Summary

	Lottery Grade	Lottery Year	Grades Obs.	N Apps	N Win	N Lose	Win Matched	Win in Final	Loser Matched	Loser in Final
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Amber	K	2005	K - 5	174	111	63	95.50	81.98	93.65	77.78
Amber	K	2006	K - 4	128	64	64	95.31	78.12	82.81	78.12
Bronx Prep.	5	2008	5 - 7	318	115	203	74.78	64.35	69.95	57.14
Bronx Prep.	5	2009	5 - 6	297	110	187	82.73	78.18	78.07	67.38
Bronx Children	K	2006	K - 4	325	50	275	94.00	74.00	92.00	74.55
Bronx Children	K	2007	K - 3	311	51	260	94.12	78.43	90.77	73.46
Bronx Children	1	2006	1 - 5	139	3	136	100.00	66.67	89.71	74.26
Bronx Children	1	2007	1 - 4	129	4	125	100.00	75.00	84.80	68.00
Bronx Children	2	2006	2 - 6	89	2	87	100.00	50.00	93.10	74.71
Bronx Children	2	2007	2 - 5	81	4	77	100.00	100.00	84.42	67.53
Bronx Children	2	2009	2 - 3	100	5	95	100.00	60.00	86.32	74.74
Bronx Children	3	2006	3 - 7	89	5	84	80.00	80.00	92.86	75.00
Bronx Children	3	2007	3 - 6	66	5	61	100.00	60.00	93.44	75.41
Bronx Children	3	2009	3 - 4	91	4	87	100.00	100.00	87.36	74.71
Bronx Children	3	2010	3	81	17	64	88.24	88.24	81.25	71.88
Bronx Children	4	2007	4 - 7	52	3	49	33.33	33.33	95.92	69.39
Bronx Children	4	2009	4 - 5	82	4	78	100.00	100.00	84.62	65.38
Bronx Children	4	2010	4	71	7	64	71.43	71.43	92.19	67.19
Bronx Children	5	2009	5 - 6	41	5	36	80.00	80.00	91.67	69.44
Bronx Children	5	2010	5	42	13	29	76.92	76.92	75.86	62.07
Bronx Arts	K	2007	K - 3	95	78	17	88.46	71.79	94.12	88.24
Bronx Arts	2	2009	2 - 3	34	15	19	93.33	86.67	78.95	52.63
Bronx Arts	3	2009	3 - 4	27	14	13	100.00	92.86	76.92	61.54
Bronx Arts	4	2009	4 - 5	38	16	22	93.75	87.50	95.45	86.36
Bronx Arts	4	2010	4	14	10	4	70.00	50.00	100.00	50.00
Bronx Arts	5	2009	5 - 6	23	15	8	100.00	93.33	75.00	62.50
Brooklyn Ascend	1	2008	1 - 3	114	59	55	98.31	94.92	98.18	89.09
Brooklyn Ascend	2	2008	2 - 4	155	61	94	96.72	90.16	90.43	81.91
Coney Island	5	2009	5 - 6	180	99	81	92.93	88.89	97.53	90.12
Coney Island	5	2010	5	202	100	102	98.00	96.00	97.06	94.12
Democracy Prep	6	2006	6 - 10	407	182	225	76.37	70.33	78.67	70.67
Democracy Prep	6	2007	6 - 9	299	108	191	88.89	79.63	82.20	71.73
Democracy Prep	6	2008	6 - 8	215	103	112	88.35	80.58	90.18	83.04
Democracy Prep	6	2009	6 - 7	276	68	208	72.06	69.12	80.77	74.04
Democracy Prep	7	2007	7 - 10	106	14	92	78.57	78.57	76.09	67.39
Democracy Prep	7	2008	7 - 9	109	24	85	91.67	91.67	90.59	84.71
Democracy Prep	7	2009	7 - 8	172	1	171	100.00	100.00	76.02	67.25
Democracy Prep	8	2008	8 - 10	33	6	27	33.33	33.33	74.07	70.37
Democracy Prep	8	2009	8 - 9	74	3	71	100.00	100.00	70.42	56.34
Equality	6	2009	6 - 7	186	76	110	92.11	78.95	90.00	76.36
Equality	6	2010	6	788	73	715	89.04	84.93	85.87	76.50
Equality	7	2010	7	229	11	218	81.82	81.82	76.61	68.81
Equality	8	2010	8	194	3	191	100.00	100.00	81.15	72.77

Excellence Boys	K	2003	K - 7	149	27	122	85.19	66.67	74.59	55.74
Excellence Boys	K	2004	K - 6	205	32	173	93.75	75.00	75.14	58.38
Excellence Boys	K	2005	K - 5	201	34	167	97.06	88.24	88.62	71.26
Excellence Boys	K	2006	K - 4	183	40	143	97.50	90.00	91.61	73.43
Excellence Boys	K	2007	K - 3	109	43	66	100.00	83.72	96.97	81.82
Explore	K	2005	K - 5	78	49	29	89.80	77.55	96.55	68.97
Explore	K	2006	K - 4	115	67	48	88.06	76.12	87.50	77.08
Explore	K	2007	K - 3	167	65	102	86.15	83.08	92.16	74.51
Future Leaders	K	2007	K - 3	157	24	133	70.83	70.83	66.17	63.16
Future Leaders	2	2009	2 - 3	13	9	4	33.33	33.33	100.00	100.00
Future Leaders	3	2009	3 - 4	24	8	16	75.00	75.00	68.75	68.75
Future Leaders	4	2009	4 - 5	17	2	15	100.00	100.00	46.67	40.00
Future Leaders	5	2009	5 - 6	43	3	40	66.67	66.67	60.00	57.50
Girls Prep.	K	2007	K - 3	154	42	112	80.95	66.67	80.36	66.96
Girls Prep.	2	2009	2 - 3	20	7	13	100.00	100.00	84.62	76.92
Grand Concourse	K	2006	K - 4	204	61	143	100.00	86.89	99.30	83.92
Grand Concourse	K	2007	K - 3	192	61	131	100.00	86.89	97.71	83.97
Grand Concourse	1	2006	1 - 5	137	10	127	100.00	90.00	99.21	77.17
Grand Concourse	1	2007	1 - 4	91	9	82	100.00	88.89	98.78	85.37
Grand Concourse	2	2006	2 - 6	45	10	35	100.00	90.00	100.00	74.29
Grand Concourse	2	2007	2 - 5	75	5	70	100.00	100.00	98.57	82.86
Grand Concourse	2	2009	2 - 3	103	10	93	100.00	90.00	95.70	80.65
Grand Concourse	3	2006	3 - 7	75	9	66	100.00	66.67	98.48	77.27
Grand Concourse	3	2007	3 - 6	61	10	51	100.00	70.00	98.04	72.55
Grand Concourse	3	2009	3 - 4	136	8	128	100.00	87.50	100.00	78.91
Grand Concourse	4	2006	4 - 8	55	10	45	100.00	40.00	100.00	82.22
Grand Concourse	4	2007	4 - 7	36	9	27	100.00	66.67	100.00	70.37
Grand Concourse	4	2009	4 - 5	85	2	83	100.00	100.00	100.00	84.34
Grand Concourse	5	2009	5 - 6	63	10	53	100.00	60.00	100.00	83.02
Harbor	1	2007	1 - 4	33	9	24	100.00	88.89	91.67	83.33
Harbor	6	2010	6	5	4	1	100.00	100.00	100.00	100.00
Harlem Link	K	2006	K - 4	156	52	104	98.08	84.62	90.38	75.96
Harlem Link	1	2006	1 - 5	32	3	29	100.00	100.00	89.66	65.52
Harlem Link	1	2008	1 - 3	54	10	44	90.00	90.00	81.82	61.36
Harlem Link	2	2006	2 - 6	25	6	19	83.33	66.67	100.00	68.42
Harlem Link	3	2009	3 - 4	119	26	93	84.62	76.92	91.40	78.49
Harlem Link	4	2008	4 - 6	32	30	2	86.67	80.00	100.00	0.00
Harlem Link	4	2009	4 - 5	110	9	101	77.78	66.67	87.13	81.19
Harlem Link	5	2009	5 - 6	55	23	32	95.65	95.65	87.50	78.12
Harlem Success 1	K	2006	K - 4	226	84	142	90.48	76.19	88.03	76.06
Harlem Success 1	K	2007	K - 3	289	114	175	89.47	74.56	85.71	76.00
Harlem Success 1	1	2006	1 - 5	201	83	118	91.57	68.67	94.07	78.81
Harlem Success 1	1	2008	1 - 3	90	6	84	100.00	100.00	98.81	86.90
Harlem Success 1	2	2007	2 - 5	54	6	48	100.00	100.00	87.50	66.67
Harlem Success 1	2	2008	2 - 4	124	9	115	100.00	77.78	90.43	72.17
Harlem Success 2	1	2008	1 - 3	224	70	154	94.29	87.14	93.51	79.87
Harlem Success 2	2	2009	2 - 3	143	31	112	90.32	87.10	82.14	73.21
Harlem Success 3	1	2008	1 - 3	566	74	492	86.49	71.62	75.41	63.21



Harlem Success 3	2	2009	2 - 3	39	3	36	66.67	66.67	94.44	91.67
Hyde	K	2006	K - 4	109	85	24	91.76	70.59	95.83	83.33
Hyde	K	2007	K - 3	48	32	16	96.88	78.12	100.00	81.25
Hyde	6	2006	6 - 10	124	102	22	98.04	89.22	100.00	68.18
Hyde	6	2007	6 - 9	89	53	36	98.11	90.57	100.00	77.78
Hyde	6	2008	6 - 8	45	10	35	100.00	80.00	100.00	88.57
Hyde	6	2009	6 - 7	82	47	35	100.00	97.87	100.00	91.43
La Cima	2	2009	2 - 3	12	4	8	100.00	75.00	87.50	75.00
La Cima	3	2010	3	10	8	2	87.50	87.50	100.00	100.00
Manhattan Charter	1	2008	1 - 3	15	3	12	66.67	66.67	58.33	58.33
Manhattan Charter	2	2008	2 - 4	13	4	9	75.00	75.00	55.56	55.56
Manhattan Charter	2	2009	2 - 3	58	1	57	0.00	0.00	82.46	68.42
Opportunity	6	2008	6 - 8	193	93	100	100.00	88.17	100.00	85.57
Opportunity	6	2009	6 - 7	188	64	124	100.00	95.31	100.00	86.07
Opportunity	7	2008	7 - 9	98	4	94	100.00	100.00	100.00	89.36
Opportunity	7	2009	7 - 8	62	3	59	100.00	100.00	100.00	89.83
Opportunity	8	2008	8 - 10	29	2	27	100.00	100.00	100.00	81.48
Opportunity	8	2009	8 - 9	45	3	42	100.00	100.00	100.00	78.05
Peninsula Prep.	3	2009	3 - 4	46	27	19	100.00	96.30	94.74	84.21
Peninsula Prep.	4	2009	4 - 5	35	18	17	100.00	88.89	100.00	76.47
Peninsula Prep.	5	2009	5 - 6	33	21	12	100.00	85.71	100.00	75.00
Promise Academy I	K	2005	K - 5	295	112	183	95.54	79.46	95.08	78.69
Promise Academy I	K	2006	K - 4	164	81	83	90.12	72.84	89.16	77.11
Promise Academy I	5	2008	5 - 7	132	94	38	81.91	73.40	86.84	71.05
Promise Academy I	6	2005	6 - 11	311	101	210	100.00	81.19	100.00	80.48
Promise Academy I	6	2006	6 - 10	266	109	157	97.25	77.06	87.26	73.25
Promise Academy II	K	2005	K - 5	159	27	132	92.59	74.07	93.94	78.03
Promise Academy II	K	2006	K - 4	166	67	99	91.04	70.15	82.83	71.72
Sisulu-Walker	K	2007	K - 3	159	16	143	87.50	81.25	93.01	76.22
S. Bronx Classical	K	2007	K - 3	154	50	104	84.00	64.00	87.50	77.88
S. Bronx Classical	1	2008	1 - 3	45	10	35	90.00	80.00	80.00	68.57
Summit	6	2009	6 - 7	254	99	155	92.93	89.90	95.48	83.23

Notes: This table reports lottery and match statistics. The sample consists of all first time applicants without sibling preference and in a lottery with at least one winner and at least one loser. Lottery winners are applicants with a winning lottery number or who are high on the wait list.