

Attendance Matters Year 1 Evaluation

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1 Executive Summary

School absenteeism is a widespread concern in American education due to its prevalence and association with lower socioemotional health and academic success. Students experiencing homelessness are notably more likely to miss school than their housed counterparts.

The Attendance Matters (AM) program sought to remove barriers to school attendance among sheltered homeless children in New York City. Working in a handful of City-managed shelters operated by three well-known nonprofit providers, the AM program's operations rested on three tenets:

- Improving interagency coordination.
- More effective use of data.
- Integration of evidence-based social work practices.

We assess AM's impact on school attendance and, secondarily, academic proficiency and school stability, during the 2018-2019 school year.

Key Findings

- The Attendance Matters program is associated with an approximately 3 day reduction in days absent and a 1.3 to 1.5 percentage point reduction in the absence rate among students in grades K-8.
- We do not see a consistent corresponding drop in the rate of students who are chronically or severely chronically absent, though point estimates are in the right direction.
- There is no effect on school proficiency, but we do see increases in school stability for K-8 and high school students.

Conclusions

We find preliminary positive effects on school attendance in the Attendance Matters pilot's first year. The results are promising for a small program in its first year, especially given analytical limitations that likely understate the program's effects. A subsequent report will examine outcomes from the program's second year, the 2019-2020 school year, up to the onset of the coronavirus pandemic.

2 Introduction

2.1 Background

Horace Mann once referred to the public education system as “the great equalizer of the conditions of men, the balance-wheel of the social machinery.” As true as that may be, this mechanism can only work for those students who show up (Growe & Montgomery, 2003).

Absenteeism is a widespread concern in American education. Of the more than 50 million public school K-12 students, more than 1 in 7 miss about a month of school each year (Census Bureau, 2019; National Center for Education Statistics, 2019). The consequences of absenteeism can be severe and long-lasting. For kindergarteners, chronic absenteeism is related to contemporaneous poor socioemotional outcomes, and lower math and reading achievement in subsequent years (Gottfried & Hill, 2019; Romero & Lee, 2007). More generally, absenteeism is predictive of lower academic achievement measured by grades, test scores, and high school graduation rates, sometimes more so than GPA and other more commonly used predictors (Gottfried & Hill, 2019; Jacobs & Lovett, 2017). In the longer-term, chronic absenteeism in school is correlated with poor health, unemployment and negative financial outcomes.

Lower-income students are chronically absent at rates double or triple that of their more economically stable peers (Balfanz & Byrnes, 2012). A large portion of this gap is due to unstable housing and homelessness. The U.S. Department of Education estimates that approximately 1.4 million students reside in temporary housing—either a doubled-up situation or in a homeless shelter—over the course of a year. While they all have higher absence rates than their stably housed peers, those in shelter are absent almost twice as often as students unstably housed outside of a shelter setting (Gateway Housing, 2020; National Center for Homeless Education, 2017, 2021).

2.2 The Attendance Matters Program

The Attendance Matters program sought to address the barriers to school attendance for children experiencing sheltered homelessness in New York City during the 2018–2019 and 2019–2020 school years. Developed by Dr. Judith Samuels and The Samuels Group, the program was managed by the Samuels Group and the Gateway Demonstration Assistance Corporation (Gateway Housing). It operated in five shelters run by three of the NYC Department of Homeless Services’ (DHS) contracted providers: HELP USA (2 shelters), BronxWorks (2 shelters), and Win, Inc. (1 shelter) during its initial year, and was expanded to a sixth shelter, run by CAMBA, in the 2019–2020 year. The program shifted its mission

substantially in March, 2020 in response to the COVID-19 pandemic (Gateway Housing, 2020).

The program hinged on three components:

- First was improving interagency coordination. Attendance Matters sought to bring together school attendance improvement efforts occurring in the NYC Department of Education (DOE) with those occurring in the DHS system and its contracted family shelters. This included regular interagency meetings that brought together shelter providers, DHS and DOE officials, and the Attendance Matters program staff to monitor outcomes, identify best practices, and address systems-level concerns. It also included the establishment of shelter-level teams that spanned agencies, on the logic that collective expertise could address the multiple causes of poor homeless student attendance. Case-level coordination was spearheaded by a Program Team Leader who worked within the structure described in Figure 1. More information about the coordination across agencies, and the program generally, is available in the 2020 implementation report produced by Gateway Housing (Gateway Housing, 2020).
- Second was more effective use of existing data and inter-Agency data-sharing workstreams to identify students in need and track their progress. The program team leader held weekly meetings at each participating shelter to review attendance data from DHS and DOE, which the Agencies had previously developed processes for sharing on a recurring basis as part of their long-standing efforts to continually improve collaboration and outcomes for students. These data were analyzed to highlight progress and challenges faced by individual students and could be shared with other relevant staff. In turn, they could be supplemented by the biopsychosocial assessments conducted by the shelters' Community Care Coordinators and by family observations by other team members.
- Third was the program's training in evidence-based social work practices, which focused on three critical areas: motivational interviewing, trauma-informed care, and working within the New York City educational system. These trainings, which were thought to "help unify teams and give them a common vocabulary and toolkit with which to engage the families and children served by the program" were provided to shelter and DOE staff quarterly during the school year.

Gateway Housing hired Social Policy Analytics to conduct an outcome evaluation of the Attendance Matters program. This report assesses the program's impacts in its first year of implementation, the 2018-2019 school year. Our primary research questions, operationalized

in the next section, focus on attendance outcomes—the extent to which the program is related to increases in the number and percentage of days in which students attend school. Following that, we assess the program’s impact on secondary questions related to test scores and school stability.

3 Data

Data are drawn from administrative records maintained by the NYC Department of Homeless Services (DHS) and the NYC Department of Education (DOE). Our reference population consists of all school-age children who spent time in a DHS Tier II shelter¹ between July 1, 2015 to July 1, 2020. Our definition of “school age” is deliberately broad², and includes all individuals who were between four and 21 years of age during at least some portion the 2015–2019 school year. Unless otherwise noted, all years in this report refer to school years, which we define as beginning in July and ending in June, and name for their starting year. For example, “2015” refers to the school year running from 7/1/15 to 6/30/16. In all, there are about 77,000 such candidate students.

We link these candidates to DOE records for the 2015 through 2018 school years through a probabilistic match. We use SAS Link King software and match on first name, last name, date of birth, gender, and race, with greatest weight placed on the first three fields. We define as true matches those linkages attaining Link King certainty levels 1–4 (the likeliest matches) and exclude more speculative level 5–7 linkages as well as unmatched candidates. By this definition, we successfully match about 77 percent of candidate homeless students (55,000) with their school records.³

Our data derives from the management information systems for NYC homeless services and education, respectively, and, as such, we observe homeless students and their families in rich detail. The DHS data describes students’ circumstances of shelter entry and the particulars of their shelter spells, as recorded in their families’ applications for shelter and the City’s shelter management database. We follow DHS practice in defining a homeless

¹Tier II shelters, which provide families with individual apartments and offer on-site social services and security, are the most common form of temporary housing for homeless families in NYC. Some are directly operated by DHS; most are managed by non-profit providers. During our study period, homeless families were also placed in “cluster” apartments scattered in private buildings and in commercial hotels. We exclude students in these families from our analysis, given the intervention we study is designed for Tier II settings. Accordingly, when we use the term “homeless” in this report, we are typically referring to Tier II shelter specifically.

²In NYC, children can enroll in kindergarten during the calendar year in which they turn five and must enroll in first grade during the calendar year in which they turn six. High schoolers may remain in school until the calendar year in which they turn 21. Three- and four-year-olds may opt to enroll in pre-kindergarten.

³As expected, not all of these students have records within the 2015-2018 period, given our over-inclusivity.

“spell” as a shelter stay inclusive of gaps up to 30 days; families who leave shelter and return more than 30 days hence begin a new spell. The DOE data includes modules detailing student biographical information, enrollment, attendance, and standardized test scores.

3.1 Outcomes

Our primary outcomes of interest relate to student attendance. We focus on two measures: days absent and the absence rate. Days absent is a count of missed school days. Absence rate is days absent divided by total school days. We also include two summary measures of pronounced absenteeism: chronically absent (meaning a student’s absence rate is 10 percent or greater) and severely chronically absent (meaning a student’s absence rate is 20 percent or greater).

We also study a set of four secondary outcomes, which, while not the focus of AM, might reasonably be affected by its enhanced supports. The first is school changes, which is an indicator equal to one if a student experiences a non-structural school admission during the school year.⁴ The other secondary outcomes relate to student performance. English proficiency is an indicator equal to one if a student scores level three or four on New York State grade 3–8 standardized tests; students scoring levels one or two, or who miss the test (which is common among homeless students) are defined as not proficient. Math proficiency is defined analogously. Overall proficiency is an indicator equal to one if a student is proficient in English and math and zero otherwise. Note that our data does not include proficiency measures for students in grades K–2 or for high schoolers.

3.2 Treatment

A student is counted as having received treatment if the main shelter of a student’s homeless spell was one of the five AM year one sites during 2018. A “main” shelter is one in which a homeless student spends the largest share of days during a homeless spell. For students with multiple spells within a school year, “main” is defined in reference to their first spell. We briefly explore the sensitivity of our results to alternative treatment definitions in Section 5.3.

⁴Structural changes are those associated with leveling up, the leading examples of which are graduating from elementary to middle school between 5th and 6th grades and from middle to high school between 8th and 9th grades.

3.3 Covariates

Although aspects of the shelter assignment process are arguably quasi-random (due to, for example, capacity constraints) (Cassidy, 2020), the AM pilot is not a randomized controlled experiment. Therefore, our analysis must account for potential sources of confounding factors. Fortunately, detailed administrative data allows us to account for factors that could be related to treatment assignment (placement in an AM pilot shelter) and student outcomes, including:

- **Circumstances of Shelter Entry:** indicators for school year, month of shelter entry, grade level, school borough of origin, shelter borough, in-school-borough placement, and non-NYC origin.
- **Student Characteristics:** indicators for female gender, English language learner, disability (individualized education program (IEP)), subsidized school lunch, age in months, and category of race (White, Black, Hispanic, Asian, Native American, multi-racial, unknown).
- **Family Characteristics:** head female gender (indicator), head age (continuous), family size (count), number of students in family (count), and homeless shelter eligibility reason category (eviction, domestic violence, overcrowding, housing conditions, other, unknown).

Unless otherwise noted, references to “covariates” in our analysis denotes this set of variables. We further describe our analytical methods in Section 4.

3.4 Sample

Because AM was not implemented as a randomized controlled trial, constructing the analytical sample requires balancing the desire to have a control group that is large with one that is comparable. In this subsection, we discuss the refinements we place on the data.

Table 1 summarizes the path from the raw data to our analytical sample. The unit of observation is a student-school-year, such that many students appear more than once. The Treatment column includes student-school-years where the main shelter of a student’s homeless spell was one of the five AM Year 1 pilot shelters during 2018 (and thus exposed to AM treatment); the Control column includes all other shelters (including AM shelters in 2017, prior to program start). Overall, we observe 51,090 school years for homeless

students during the 2015–2018 period (row 1).⁵ Our analysis excludes special school districts, including students with disabilities, alternative schools, and charter schools. We focus on 2017 and 2018 so as to have a pre-Attendance Matters comparison period most similar to the Year 1 pilot (2018); we exclude special districts because data for these districts are less reliably observed and/or have different interpretations. This leaves us with 24,195 student-years; of these, 23,636 observations have current-year attendance data and 19,110 also have prior year attendance data (an important control, to be discussed below). Henceforth, we refer to these 24,195 observations as our “Full Sample.” Appendix Tables A.1 and A.2 summarize key performance indicators by prior year data availability and treatment status for the primary school and high school samples, respectively.

Panel A of Table 2 breaks out row 3 of Table 1 in further detail, showing the distribution of homeless students across school years and shelter settings. As with Table 1, treatment shelters are defined as the five AM shelters during the Year 1 (2018) pilot (that is, a student’s homeless spell that overlapped the 2018 school year featured an AM pilot site as the main shelter). In all, 1,175 students were exposed to AM treatment by this measure, while 23,020 student-years serve as controls (which include treated students, as well as treatment shelters during non-treatment years, i.e, 2017).

Panel B provides the same breakout for a “continuing homeless” sample, which features prominently in the analysis. These are students who were also homeless in the year prior to the school year in question (e.g., 684 of the AM Year 1 pilot students also spent time in a Tier II shelter in 2017). This subsample is of interest because it describes a subset of students with prolonged (or recurring) homelessness experiences.

To provide context, Table 3 presents main shelter affiliations for in-sample homeless students during the 2017 and 2018 school years, grouped by whether the shelter was, in 2018, selected as an AM Year 1 Pilot site. There are approximately 12,000 unique Tier II-sheltered students during each school year. Of note, however, is that while non-AM sites experienced student growth of 1.5 percent from 2017 to 2018, the shelters where AM was implemented saw a 9.0 percent reduction in unique students, from 1,291 in 2017 to 1,175. This lower turnover at AM shelters is a dynamic to keep in mind in interpreting the results that follow.

⁵Note that we observe both homeless and non-homeless school years for students in our sample; school years where students did not spend time in shelter are excluded from this table, as these years are not central to the analysis. In full, the data includes 131,000 student-school-years, of which 80,000 are non-homeless years and 51,000 are homeless years.

4 Empirical Methods

The central empirical challenge in evaluating the effect of Attendance Matters on homeless student outcomes is that treatment shelters for the Year 1 Pilot are not randomly selected. Therefore, we use two quasi-experimental techniques to guard against unobservable differences. The first is linear regression estimated by ordinary least squares (OLS) and conditioned on the rich controls outlined above. The second is an extension of OLS: a difference-in-differences approach comparing treatment and control shelter pre- and during the Year 1 Pilot.

Our estimating equation takes the general form:

$$\begin{aligned}
 outcome_{it} = & \beta' covariates_{it} + \gamma' outcomes_{i,t-1} + \delta \mathbf{1}\{year = 2018\} \\
 & + \tau \underbrace{\mathbf{1}\{shelter = AMsite \times year = 2018\}}_{\text{Treatment}} \\
 & + \underbrace{[shelter_s + provider_p + school_e + shelter_and_school_covs]}_{\text{D-in-D specification}} + \varepsilon_{it}
 \end{aligned} \tag{1}$$

In words, an outcome (the set of which is detailed in Section 3.1) for student i in year t is a linear function of treatment, an indicator equal to one if a student’s main shelter is an AM Year 1 Pilot site and the year is 2018 (and zero otherwise), and the treatment effect is estimated by τ , our parameter of interest. Our multivariate linear regression specification (which we refer to as “OLS” for shorthand) controls for *covariates* (the set of student, family, and shelter entry characteristics described in Section 3.3), whose associations with outcomes are measured by the vector β ; an indicator for school year (equal to 1 if the year is 2018 and 0 if 2017), with association δ ; and, importantly, student *prior school year outcomes*, the relevance of which are measured by parameter vector γ . The prior year outcomes we control for are days absent quartile, absence rate quartile, and an indicator for school change; each of these controls is categorical in nature, such that we append each with an additional category indicating that that prior year outcome is missing (as would be the case, for example, with kindergartners), so as not to incidentally truncate the sample. ε_{it} is the error term, and represents all other factors that may matter for outcomes that are not captured in the data.

Our OLS model will provide an unbiased estimate of AM if the error term includes no factors that are related to both treatment status and outcomes. The detail in our covariate set and, especially, the ability to condition on prior year outcomes, make this a plausible assumption, as these variables arguably proxy for a wide range of potentially confounding factors. We also estimate a difference-in-differences (DD) specification that augments the OLS model with a set of dummy variables indicating each student’s main shelter, shelter

provider, and school of origin. Also known as “fixed effects,” these sets of dummies control, respectively, for unobservable shelter, provider, and school effects that are constant across homeless students and over time (e.g., location, quality, and amenities). In addition, we introduce three time-varying controls (*shelter_and_school_covs*)—the number of students in a shelter, the number of schools attended by students in a shelter, and the number of homeless students in a school—to proxy for dynamic differences in student settings. Standard errors are clustered at the family level.

5 Results

We assess the composition of the sample before presenting our main results, and conclude with several robustness checks and extensions.

5.1 Balance Test and Pre-Trends

Given the lack of random assignment of students to Attendance Matters, the first empirical task is to determine the comparability of treatment and control students⁶

Tables 4 (primary school) and 5 (high school) present balance tests contrasting mean differences in student characteristics and prior year school outcomes. The findings are reassuring. AM students are similar to their untreated peers in demographics, circumstances of shelter entry, and prior year school performance. Most relevant to our analysis, there are no differences at baseline in attendance or school changes—perhaps the two most salient markers of homeless student disadvantage.

This suggests that the assumptions of our OLS model are satisfied. Furthermore, Figure 2, which shows the AM and control group means for several important educational metrics during the 2015–2018 school years, suggests that pre-trends in AM and non-AM shelters are comparable. This means that our DD model can yield an even more credible comparison.

Apart from treatment-control balance, these descriptive statistics also make plain the profound educational challenges homeless students face. In our sample, the average homeless K–8 student is absent 25 days per year, or about 16 percent of the time. Fully 63 percent of homeless primary schoolers are chronically absent. 41 percent change schools in a given year. Just 9 percent are proficient in both Math and English. Homeless high schoolers fare even worse.

⁶Throughout this section, we refer to “students” for simplicity when we really mean “student-school-year,” our actual unit of observation.

5.2 Main Results

Table 6 presents our main results for primary schoolers (grades K–8).⁷ Each row considers a different outcome. Column 1 provides outcome means for the control group. Columns 2 and 3 give our OLS and DD estimates, respectively, for the full sample; columns 4 and 5 do the same for the continuing homeless sample. Each cell reports the treatment effect—that is, the coefficient on AM treatment from a separate regression of the outcome on the treatment indicator and the model’s set of control variables. Standard errors clustered by family are in parentheses; numbers of observations are in braces.

The most pronounced results for primary school students are for our two primary outcomes of interest – days absent and the absence rate. Depending on the model specification, exposure to AM is associated with significant improvements in absenteeism. A student whose primary shelter in 2018 implemented the Attendance Matters program had, on average, a reduction in days absent of 2.1 to 3.3 days, on average, compared to children in other shelters when controlling for potential covariates. We also observed statistically significant reductions in the absence rate varying from 1.3 percentage points to 1.7 percentage points. Results were consistently significant for our full sample; for models that included only students homeless in both the 2017 and 2018 school years, point estimates were consistently in the right direction but larger standard errors means that we cannot rule out null effects. Participation in AM was associated with 2.9 pp and 4.5 pp decreases in the severe chronic absenteeism rates in the two models in which findings were consistent, though the difference-in-difference models did not suggest an effect. We also saw notable drops (of between 2 and 4.4 pp) in the chronic absence rate, though only one of the four models was significant. We should note, however, that the chronic and severe chronic absence margins involve arbitrary thresholds, and failure to detect changes around these thresholds is not incompatible with attendance gains.

The results for school changes are similarly suggestively optimistic. Across all specifications, the point estimates suggest a reduction in the probability of school changes of 2.5–7.4 pp, off a base of 40.7 percent, statistically significant in the full-sample OLS and continuing homeless DD specifications. In other words, while there is some noise in the estimates, AM appears to be associated with stability gains, at least for students with lengthy homelessness experiences. We do not, however, detect gains in proficiency among 3–8 graders. These results are not necessarily surprising, since: (1) AM was not designed to address proficiency, and (2) proficiency among homeless students is persistently difficult needle to move, with

⁷Table A.3 repeats this table for the subsample of elementary school students (grades K–5). The results mirror those discussed here for primary school as a whole, albeit with less precise estimates. Given the similarities, we do not discuss those results separately.

fewer than one in ten performing up-to-standard in both English and math.

Table 7 presents analogous results for high schoolers (grades 9–12). Here, the scale of absenteeism is even more pronounced, with the average homeless high schooler missing 36.9 days per year (27.4 percent) in the control group. We do not find any statistically significant associations between AM and attendance among this cohort of older students. The DD point estimates for all four attendance measures are similar in magnitude to that among primary schoolers, but the sample sizes are smaller and the data too noisy to rule out null effects. On the other hand, AM is associated with improvements in school stability: treated students are up to 7.6 pp less likely to change schools (compared to a base rate of 27.4 percent), significant in the OLS models for the full sample.

On balance, then, AM appears associated with stronger impacts on younger students, which makes sense given the program is intended to focus on younger students. But impacts on older students is not out of the realm of possibility, since AM serves the family as a whole.

5.3 Robustness and Extensions

In this section, we address several questions raised by our main results.

5.3.1 Treatment Robustness

In the main analysis, we define treatment as a binary indicator equal to one if a student’s main (plurality of days) shelter during a 2018 shelter spell (that is, a spell overlapping 2018) is one of the five AM Year 1 sites. But other definitions are possible, and we therefore test the strength of findings of our analysis using these alternative measures. In Table 8, we consider four:

1. Initial: an indicator equal to one if a student’s first shelter assignment during a 2018 spell is an AM Year 1 site.
2. Ever: an indicator equal to one if a student ever spent time in an AM shelter during a 2018 spell.
3. Days: the number of days during a 2018 spell that a student spent in AM shelter, divided by 100, such that the coefficients from regressions on this treatment definition represent the effect per each additional 100 days exposed to AM.
4. Four: main treatment, but adjusted to include only the four full-year AM Year 1 shelters.

Each of these treatment definitions gets its own column in the table; supercolumns denote OLS and DD models. As before, rows index outcomes. All results are for the full sample. There are two main findings. First, the four-shelter and days treatment definitions (appropriately scaled) generally confirm our main results for both the OLS and DD models. Primary school students miss fewer school days, and they are less apt to change schools.

The second point is that the initial and ever treatment definitions do not find significant effects, likely because these measures are too weak to detect adequate program exposure. Recall that we are only able to estimate intent-to-treat effects in the first place; including students with mild exposures to AM in the “treated” group dilutes results further.

Overall, we believe the pattern of results in this table confirm our main findings: prolonged exposure to AM is associated with fewer absences and school changes.

5.3.2 Distributional Effects

It is also useful to think about which types of students are most affected by AM. One easy way to visualize program impact is by looking at the relationship between treatment and the attendance distribution. Figure 4 provides kernel (probability) density plots of days absent for the treatment (maroon) and control (navy) samples (using a bandwidth of 3 days for smoothing). The curves have similar shapes but the treatment curve is a leftward shift of the control counterpart. In other words, the relative proportion of treated students is more strongly concentrated below about 10 absences (where the curves cross), and control students are proportionately more pronounced thereafter (beyond about 50 absences, the data gets noisy, and, in fact, the plots are truncated at 75 days).

Another way to classify treatment effects is by where in the outcome distribution they take place. Figure 3 assesses this distribution by plotting the coefficient on AM treatment from regressions where the outcomes are binary indicators for membership in quintiles of the days absent distribution for K–8 graders (and controlling for main covariates). Results from the OLS model are in navy and DD results are in maroon. Coefficients multiplied by 100 give the percentage point change in the likelihood of quintile memberships associated with AM. Bars give 95 percent confidence intervals.

The evidence suggests AM effects are most concentrated at the extremes of the attendance distribution. AM students are more likely to have very few absences and they are less likely to have very many absences.

5.3.3 Intent-to-Treat

Finally, we should note the intent-to-treat (ITT) nature of the results. While we measure attendance for all students in AM shelters, we do not know whether or to what extent they were served by the program. Not all students received AM services. To some degree this was by design, as those with more intensive or complex needs received greater priority from the AM team, but it was also a function of limited staff and variability in the length of stay in shelters (ie, students in an AM shelter for a whole year and who were receiving program services would have received more intensive treatment than a similar student in that shelter for only a portion of the year). That our treatment measure is exposure rather than participation means that we are understating the true potential of this intervention (footnote: it also means our results are less precise than they otherwise would be).

6 Conclusion and Discussion

This first-year evaluation of the Attendance Matters program finds preliminary positive effects on school attendance. The most optimistic finding is that K-8 students in shelters participating in the Attendance Matters program miss, on average, 2-3 fewer days of school and have an absence rate about 1.5 percentage points lower than their non-Attendance Matters counterparts. Despite these gains, we do not see knock-on improvements in proficiency associated. On the other hand, we accumulate some evidence to suggest Attendance Matters could enhance school stability.

This improvement in school attendance is a promising result for a small program in its initial year. As does any nearly any program during its rollout, Attendance Matters had to climb a steep learning curve during 2018–2019, as it sought to address a longstanding challenge for which there are few tested solutions. Beyond the standard problems of addressing school outcomes among homeless children, Attendance Matters was implemented in New York City, which has the largest public school system and also the largest sheltered homeless population in the United States. We expect that other large cities can learn from NYC’s experience.

There are limitations to this study beyond the inherent difficulties of evaluating a program in its first year. As noted earlier, this is an Intent-to-Treat (ITT) study because we cannot determine which, or how many, children at each Attendance Matters program received the intervention, or to what extent caseworkers may have worked with them, and we therefore believe that our estimates represent a lower bound of the AM program’s association impact on attendance. In addition, we know that there was meaningful variation in program conditions

and implementation across sites. The shelters in which the program operated varied in capacity from 33 to 216 family units and spanned three nonprofit providers. What's more, shelters are idiosyncratic in leadership and staff, among other factors. Across shelters and especially across providers, program staff had to tweak elements of the program to suit each facility's management styles, cultures, and constraints.

Despite acknowledged limitations, this evaluation suggests that, in its first year, the Attendance Matters program, guided by three commonly accepted best practices—coordination across agencies, data-informed decisions, and reliance on evidence-based practices—likely moved the needle in meaningful ways. A final Attendance Matters evaluation report will examine outcomes from the program's second year, the 2019–2020 school year, up to the onset of the coronavirus pandemic.

7 Tables

Table 1: Sample Step-Down

	Control	Treatment	Total
Homeless K–12 Students 2015–18	49,851	1,239	51,090
2017 & 2018 School Years	24,334	1,239	25,573
Excluding Special Districts	23,020	1,175	24,195
With Current Year Attendance	22,489	1,147	23,636
With Prior Year Attendance	18,153	957	19,110

Unit of observation is student-school-year. Treatment defined as residing in one of the five Attendance Matters Year 1 shelters for a plurality of a shelter spell overlapping the first year of the program (2018). AM shelters during 2017 are included in the Control group. Each row imposes an additional restriction on the row above it.

Table 2: Data and Sample Overview

	2017 (Pre-AM)	2018 (AM Yr. 1)	Total
A. Full Sample			
Control Shelters	12,072	10,948	23,020
Treatment Shelters	0	1,175	1,175
Total	12,072	12,123	24,195
B. Continuing Homeless Sample			
Control Shelters	6,306	5,766	12,072
Treatment Shelters	0	684	684
Total	6,306	6,450	12,756

Unit of observation is individual student. Treatment defined as residing in one of the five Attendance Matters Year 1 shelters for a plurality of a shelter spell overlapping the first year of the program (2018). Sample consists of all DOE K–12 students with Tier II shelter stays during given school year, excluding those in special districts 75, 79, and 84.

Table 3: K–12 Students by Year and Treatment

	2017	2018	Total	% Chg.
Control	10,781	10,948	21,729	1.5%
Treatment	1,291	1,175	2,466	-9.0%
Total	12,072	12,123	24,195	0.4%

Unit of observation is student-school-year. This table characterizes student-school-years according to whether the plurality of a student’s shelter spell overlapping the given school year was spent at one of the five Attendance Matters shelter (Treatment) or another Tier II shelter (Control). That is, AM shelters during 2017 are included in the Treatment row for purposes of grouping, but actual treatment only occurred during the 2018 school year. Note that this grouping is different than Table 2, which categorizes student-school-years according to actual treatment. Sample consists of all DOE K–12 students with Tier II shelter stays during given school year, excluding those in special districts 75, 79, and 84.

Table 4: Descriptives and Balance Test: Primary School (K–8)

	Overall		Balance Test		
	Mean	SD	Treatment	Control	Diff.
School Year	2017.50	0.50	2018.00	2017.48	0.52
Month of Shelter Entry	6.41	3.37	6.51	6.41	0.10
Grade	3.48	2.51	3.63	3.47	0.16*
Manhattan School	0.13	0.33	0.08	0.13	-0.05**
Bronx School	0.40	0.49	0.48	0.40	0.09**
Brooklyn School	0.31	0.46	0.34	0.31	0.04
Queens School	0.14	0.35	0.07	0.14	-0.07**
Staten Island School	0.02	0.15	0.02	0.02	-0.00
Manhattan Shelter	0.09	0.28	-0.00	0.09	-0.09
Bronx Shelter	0.40	0.49	0.53	0.39	0.14**
Brooklyn Shelter	0.36	0.48	0.47	0.35	0.12**
Queens Shelter	0.14	0.35	0.00	0.15	-0.15
Staten Island Shelter	0.01	0.10	-0.00	0.01	-0.01
Student Age	9.33	2.70	9.49	9.32	0.17*
Student Female	0.49	0.50	0.51	0.49	0.02
Student Black	0.48	0.50	0.44	0.48	-0.04*
Student Hispanic	0.46	0.50	0.49	0.46	0.03
English Learner	0.14	0.34	0.16	0.14	0.02
Free Lunch	1.00	0.03	1.00	1.00	-0.00
IEP	0.29	0.46	0.28	0.30	-0.01
Non-NYC	0.16	0.36	0.15	0.16	-0.01
School Boro Placement	0.61	0.49	0.66	0.61	0.05**
Head Age	34.17	7.48	34.88	34.13	0.75**
Head Female	0.91	0.29	0.89	0.91	-0.02
Students in Family	2.04	1.08	2.37	2.02	0.34**
Family Size	4.14	1.63	4.67	4.11	0.56**
Head Partner Present	0.28	0.45	0.38	0.27	0.11**
Eligibility: Eviction	0.18	0.39	0.21	0.18	0.03*
Eligibility: Overcrowding	0.09	0.29	0.10	0.09	0.01
Eligibility: Conditions	0.04	0.19	0.05	0.04	0.01
Eligibility: DV	0.24	0.43	0.20	0.24	-0.04**
Days Absent Prior Year	23.86	19.07	24.56	23.82	0.73
Absence Rate Prior Year	0.15	0.13	0.15	0.15	-0.00
Chronic Abs. Prior Year	0.60	0.49	0.63	0.60	0.04
Sev. Chr. Abs. Prior Year	0.25	0.44	0.27	0.25	0.02
Changed School Prior Year	0.30	0.46	0.30	0.30	0.00
English Prof. Prior Year	0.16	0.37	0.19	0.16	0.03
Math Prof. Prior Year	0.14	0.35	0.18	0.14	0.04**
Proficient Prior Year	0.08	0.27	0.11	0.08	0.04**
Homeless Prior Year	0.60	0.49	0.64	0.60	0.04*
School Year LOS	180.44	129.00	200.31	179.44	20.87**
Length of Stay	483.10	431.37	519.80	481.24	38.56*
Total School Days	163.82	35.41	164.63	163.78	0.85
Days Absent	25.22	19.90	23.36	25.31	-1.95**
Absence Rate	0.16	0.13	0.15	0.16	-0.01**
Chronic Abs.	0.63	0.48	0.58	0.63	-0.05**
Sev. Chr. Abs.	0.28	0.45	0.26	0.28	-0.03
School Change	0.41	0.49	0.36	0.41	-0.05**
English Proficient	0.19	0.39	0.17	0.19	-0.02
Math Proficient	0.15	0.35	0.17	0.15	0.02
Proficient	0.09	0.29	0.10	0.09	0.01

Full K–8 sample. Group contrasts are obtained from separate bivariate OLS regressions of each characteristic of interest on an indicator for Attendance Matters treatment. Standard errors clustered at the family level.

* $p < 0.10$, ** $p < 0.05$

Table 5: Descriptives and Balance Test: High School (9–12)

	Overall		Balance Test		
	Mean	SD	Treatment	Control	Diff.
School Year	2017.49	0.50	2018.00	2017.47	0.53
Month of Shelter Entry	6.39	3.40	6.76	6.37	0.39
Grade	10.14	1.08	10.13	10.14	-0.01
Manhattan School	0.19	0.40	0.19	0.19	-0.00
Bronx School	0.33	0.47	0.36	0.33	0.03
Brooklyn School	0.32	0.47	0.33	0.32	0.02
Queens School	0.13	0.34	0.09	0.14	-0.04**
Staten Island School	0.02	0.15	0.02	0.02	0.00
Manhattan Shelter	0.07	0.26	0.00	0.08	-0.08
Bronx Shelter	0.38	0.49	0.50	0.37	0.13**
Brooklyn Shelter	0.39	0.49	0.50	0.39	0.11**
Queens Shelter	0.15	0.35	-0.00	0.15	-0.15
Staten Island Shelter	0.01	0.08	-0.00	0.01	-0.01
Student Age	16.61	1.52	16.56	16.62	-0.05
Student Female	0.52	0.50	0.53	0.52	0.02
Student Black	0.52	0.50	0.47	0.52	-0.05
Student Hispanic	0.42	0.49	0.48	0.41	0.07**
English Learner	0.15	0.36	0.15	0.15	0.00
Free Lunch	1.00	0.06	1.00	1.00	0.00**
IEP	0.26	0.44	0.27	0.26	0.01
Non-NYC	0.13	0.34	0.17	0.13	0.04
School Boro Placement	0.52	0.50	0.53	0.52	0.01
Head Age	40.79	8.07	40.59	40.80	-0.22
Head Female	0.87	0.33	0.86	0.87	-0.01
Students in Family	2.08	1.12	2.26	2.07	0.20**
Family Size	4.13	1.66	4.63	4.10	0.53**
Head Partner Present	0.24	0.43	0.28	0.24	0.05
Eligibility: Eviction	0.25	0.43	0.28	0.25	0.03
Eligibility: Overcrowding	0.09	0.28	0.12	0.08	0.04*
Eligibility: Conditions	0.05	0.21	0.03	0.05	-0.02
Eligibility: DV	0.18	0.38	0.18	0.18	0.01
Days Absent Prior Year	31.14	32.57	30.60	31.17	-0.56
Absence Rate Prior Year	0.22	0.22	0.21	0.22	-0.01
Chronic Abs. Prior Year	0.61	0.49	0.56	0.61	-0.06
Sev. Chr. Abs. Prior Year	0.36	0.48	0.34	0.36	-0.01
Changed School Prior Year	0.20	0.40	0.19	0.20	-0.01
Homeless Prior Year	0.62	0.49	0.71	0.61	0.10**
School Year LOS	190.49	130.57	214.00	189.25	24.75**
Length of Stay	524.63	454.16	574.69	521.99	52.70*
Total School Days	149.05	39.17	157.06	148.63	8.43**
Days Absent	36.93	37.91	38.37	36.86	1.51
Absence Rate	0.27	0.27	0.27	0.27	-0.01
Chronic Abs.	0.67	0.47	0.62	0.67	-0.05
Sev. Chr. Abs.	0.45	0.50	0.40	0.45	-0.05
School Change	0.27	0.45	0.24	0.27	-0.04

Full 9–12 sample. Group contrasts are obtained from separate bivariate OLS regressions of each characteristic of interest on an indicator for Attendance Matters treatment. Standard errors clustered at the family level.

* $p < 0.10$, ** $p < 0.05$

Table 6: Primary School (K-8) Main Results

Outcome	Outcome	Full Sample		Continuing Homeless	
	Mean (1)	OLS (2)	DD (3)	OLS (4)	DD (5)
Days Absent	25.3** (20.0) {17,995}	-2.1** (0.7) {17,942}	-3.3** (1.1) {17,806}	-3.0** (0.9) {9,068}	-2.5 (1.5) {8,893}
Absence Rate	0.160** (0.127) {17,995}	-0.014** (0.005) {17,942}	-0.013* (0.007) {17,806}	-0.017** (0.006) {9,068}	-0.005 (0.010) {8,893}
Chronic Abs.	0.631** (0.483) {17,995}	-0.042** (0.019) {17,942}	-0.044 (0.027) {17,806}	-0.030 (0.025) {9,068}	-0.020 (0.038) {8,893}
Sev. Chr. Abs.	0.283** (0.451) {17,995}	-0.029* (0.017) {17,942}	-0.030 (0.026) {17,806}	-0.045** (0.022) {9,068}	0.004 (0.035) {8,893}
School Change	0.407** (0.491) {18,089}	-0.043** (0.020) {18,034}	-0.034 (0.029) {17,901}	-0.025 (0.026) {9,122}	-0.074* (0.041) {8,951}
English Proficient	0.188** (0.391) {10,656}	-0.014 (0.017) {10,641}	-0.031 (0.023) {10,487}	-0.020 (0.022) {5,432}	-0.046 (0.035) {5,244}
Math Proficient	0.146** (0.353) {10,656}	0.014 (0.016) {10,641}	0.008 (0.021) {10,487}	0.023 (0.022) {5,432}	0.023 (0.033) {5,244}
Proficient	0.089** (0.285) {10,656}	0.013 (0.014) {10,641}	0.002 (0.017) {10,487}	0.020 (0.018) {5,432}	0.012 (0.026) {5,244}
Covariates	No	Yes	Yes	Yes	Yes
Prior Year Covs.	No	Yes	Yes	Yes	Yes
Fixed Effects	No	No	Yes	No	Yes
School Years	17,18	17,18	17,18	17,18	17,18

Unit of observation is the student-school-year. Full sample consists of all K-8 students residing in a DHS Tier II shelter during the 2017 and 2018 school years, excluding those in special districts 75,79, and 84. Continuing Homeless sample is subset the Full sample students who also experienced sheltered homelessness in the prior school year. First column gives outcome means for non-Attendance Matters student-school-years (the control group). In columns 2-5, each cell reports the coefficient on Attendance Matters treatment from a separate OLS regression of the row-enumerated outcome on an indicator for treatment, controlling for column-enumerated covariates. Covariates are: controls for circumstances of shelter entry (school year, month of shelter entry, grade level, school borough of origin, shelter borough, in-school-borough placement, non-NYC origin), student characteristics (gender, race, English language learner status, disability status, subsidized school lunch status, year-month age), and family characteristics (family size, number of students in family, homeless shelter eligibility reason, head gender, and head age (continuous)). All regressions also control for quartiles of prior year days absent and absence rate, as well as an indicator for prior year school change; each of these prior year covariates additionally includes a category for unknown, so as not to exclude students whose prior year outcomes are not captured in the data. All covariates are binary or categorical indicators unless otherwise noted. The difference-in-difference specification includes shelter fixed effects, school fixed effects, any year-varying counts of homeless students in each shelter, homeless students in each school, and the number of distinct schools attended by homeless students in each shelter. Standard errors clustered by family are in parentheses. Number of observations are in braces. * $p < 0.10$, ** $p < 0.05$

Table 7: High School (9-12) Main Results

Outcome	Outcome	Full Sample		Continuing Homeless	
	Mean (1)	OLS (2)	DD (3)	OLS (4)	DD (5)
Days Absent	36.9** (37.7) {4,494}	3.4 (2.4) {4,448}	1.4 (3.4) {4,358}	5.6* (3.2) {2,409}	1.5 (5.2) {2,342}
Absence Rate	0.274** (0.272) {4,494}	0.011 (0.015) {4,448}	0.008 (0.022) {4,358}	0.035* (0.019) {2,409}	-0.013 (0.032) {2,342}
Chronic Abs.	0.672** (0.470) {4,494}	-0.031 (0.029) {4,448}	-0.006 (0.045) {4,358}	-0.047 (0.036) {2,409}	-0.101* (0.058) {2,342}
Sev. Chr. Abs.	0.447** (0.497) {4,494}	-0.020 (0.028) {4,448}	0.015 (0.044) {4,358}	0.003 (0.035) {2,409}	-0.019 (0.059) {2,342}
School Change	0.274** (0.446) {4,931}	-0.060** (0.029) {4,872}	0.004 (0.042) {4,771}	-0.054 (0.036) {2,628}	-0.076 (0.061) {2,546}
Covariates	No	Yes	Yes	Yes	Yes
Prior Year Covs.	No	Yes	Yes	Yes	Yes
Fixed Effects	No	No	Yes	No	Yes
School Years	17,18	17,18	17,18	17,18	17,18

Unit of observation is the student-school-year. Full sample consists of all 9–12 grade students residing in a DHS Tier II shelter during the 2017 and 2018 school years, excluding those in special districts 75,79, and 84. Continuing Homeless sample is subset the Full sample students who also experienced sheltered homelessness in the prior school year. First column gives outcome means for non-Attendance Matters student-school-years (the control group). In columns 2–5, each cell reports the coefficient on Attendance Matters treatment from a separate OLS regression of the row-enumerated outcome on an indicator for treatment, controlling for column-enumerated covariates. Covariates are: controls for circumstances of shelter entry (school year, month of shelter entry, grade level, school borough of origin, shelter borough, in-school-borough placement, non-NYC origin), student characteristics (gender, race, English language learner status, disability status, subsidized school lunch status, year-month age), and family characteristics (family size, number of students in family, homeless shelter eligibility reason, head gender, and head age (continuous)). All regressions also control for quartiles of prior year days absent and absence rate, as well as an indicator for prior year school change; each of these prior year covariates additionally includes a category for unknown, so as not to exclude students whose prior year outcomes are not captured in the data. All covariates are binary or categorical indicators unless otherwise noted. The difference-in-difference specification includes shelter fixed effects, school fixed effects, any year-varying counts of homeless students in each shelter, homeless students in each school, and the number of distinct schools attended by homeless students in each shelter. Standard errors clustered by family are in parentheses. Number of observations are in braces. * $p < 0.10$, ** $p < 0.05$

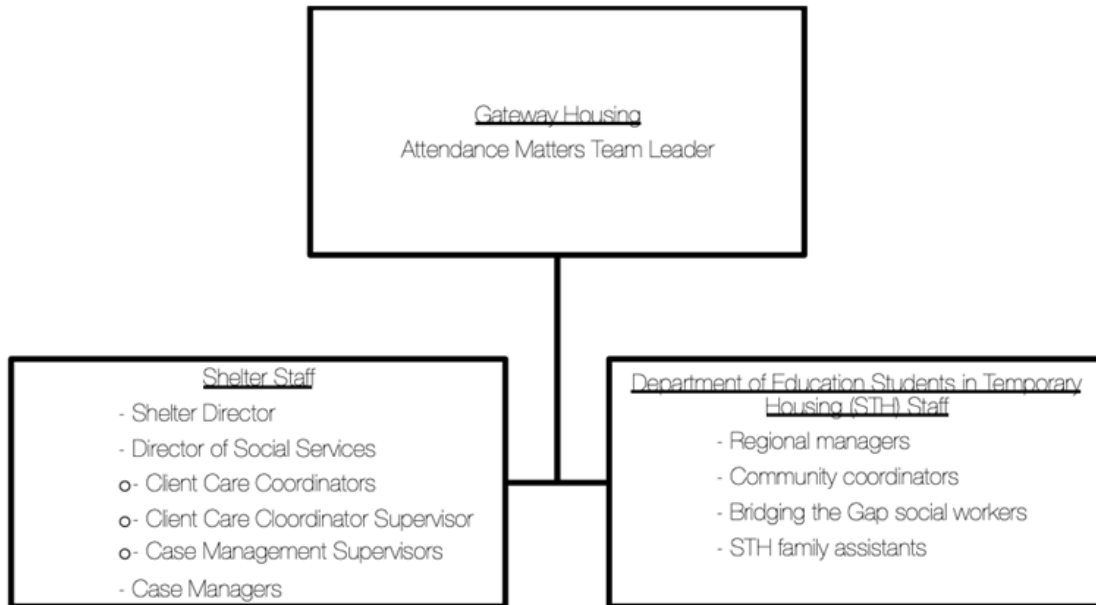
Table 8: Primary School (K-8) Treatment Robustness

Outcome	OLS					DD				
	Main (1)	Init. (2)	Ever (3)	Days (4)	Four (5)	Main (6)	Init. (7)	Ever (8)	Days (9)	Four (10)
Days Absent	-2.11** (94.84) {17,942}	-0.58 (0.76) {17,942}	-0.81 (0.71) {17,942}	-0.56** (0.22) {17,942}	-2.09** (0.71) {17,822}	-2.99** (1.08) {17,685}	-0.28 (1.01) {17,685}	-0.28 (1.03) {17,685}	-0.31 (0.37) {17,685}	-2.99** (1.08) {17,685}
Absence Rate	-0.0144** (0.6046) {17,942}	-0.0043 (0.0047) {17,942}	-0.0055 (0.0044) {17,942}	-0.0060** (0.0013) {17,942}	-0.0144** (0.0045) {17,822}	-0.0106 (0.0067) {17,685}	0.0031 (0.0061) {17,685}	0.0046 (0.0063) {17,685}	-0.0049** (0.0022) {17,685}	-0.0106 (0.0067) {17,685}
Chronic Abs.	-0.0421** (2.5802) {17,942}	-0.0125 (0.0192) {17,942}	-0.0262 (0.0178) {17,942}	-0.0198** (0.0059) {17,942}	-0.0368* (0.0198) {17,822}	-0.0335 (0.0281) {17,685}	0.0007 (0.0238) {17,685}	-0.0079 (0.0229) {17,685}	-0.0160* (0.0091) {17,685}	-0.0335 (0.0281) {17,685}
Sev. Chr. Abs.	-0.0292* (2.3436) {17,942}	-0.0082 (0.0183) {17,942}	-0.0073 (0.0168) {17,942}	-0.0163** (0.0050) {17,942}	-0.0257 (0.0179) {17,822}	-0.0144 (0.0263) {17,685}	0.0124 (0.0233) {17,685}	0.0181 (0.0231) {17,685}	-0.0143* (0.0083) {17,685}	-0.0144 (0.0263) {17,685}
School Change	-0.0428** (2.6542) {18,034}	-0.0565** (0.0204) {18,034}	-0.0348* (0.0186) {18,034}	-0.0252** (0.0059) {18,034}	-0.0499** (0.0202) {17,914}	-0.0405 (0.0301) {17,780}	-0.0492* (0.0257) {17,780}	-0.0289 (0.0248) {17,780}	-0.0345** (0.0090) {17,780}	-0.0405 (0.0301) {17,780}
English Proficient	-0.0137 (1.7885) {10,641}	-0.0133 (0.0177) {10,641}	-0.0089 (0.0165) {10,641}	0.0052 (0.0057) {10,641}	-0.0152 (0.0177) {10,571}	-0.0378 (0.0236) {10,416}	-0.0271 (0.0220) {10,416}	-0.0178 (0.0204) {10,416}	0.0105 (0.0079) {10,416}	-0.0378 (0.0236) {10,416}
Math Proficient	0.0144 (1.6979) {10,641}	0.0195 (0.0174) {10,641}	0.0021 (0.0150) {10,641}	0.0081 (0.0057) {10,641}	0.0145 (0.0169) {10,571}	0.0080 (0.0216) {10,416}	0.0104 (0.0191) {10,416}	-0.0102 (0.0175) {10,416}	0.0147** (0.0074) {10,416}	0.0080 (0.0216) {10,416}
Proficient	0.0133 (1.4041) {10,641}	0.0127 (0.0142) {10,641}	0.0063 (0.0124) {10,641}	0.0050 (0.0044) {10,641}	0.0134 (0.0139) {10,571}	0.0007 (0.0178) {10,416}	0.0009 (0.0159) {10,416}	-0.0060 (0.0146) {10,416}	0.0034 (0.0060) {10,416}	0.0007 (0.0178) {10,416}
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Prior Year Covs.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
School Years	17,18	17,18	17,18	17,18	17,18	17,18	17,18	17,18	17,18	17,18

Unit of observation is the student-school-year. Full K-8 sample: all students residing in a DHS Tier II shelter during the 2017 and 2018 school years, excluding those in special districts 75, 79, and 84. First five columns present to OLS model; last five columns present difference-in-difference-in-difference specification. Rows index outcomes; columns index treatment definitions. Each cell reports the coefficient from a separate regression of outcome on Attendance Matters treatment, controlling for each model's covariates and fixed effects. Treatment definitions are as follows. Main: primary (longest stay) shelter during a spell including a portion of the 2019 school year is one of five AM shelters. Initial: first shelter during a spell overlapping 2018 is AM shelter. Ever: ever stayed in an AM shelter during 2018 school year. Days: count of days in AM shelter during 2018 school year, divided by 100, such that the coefficient gives the effect per 100 days of treatment. Four: same as Main, but excluding partial-year AM shelter. Standard errors clustered by family are in parentheses. Number of observations are in braces. * $p < 0.10$, ** $p < 0.05$

8 Figures

Figure 1



Attendance Matters Team Members. Source: Gateway, 2020

Figure 2

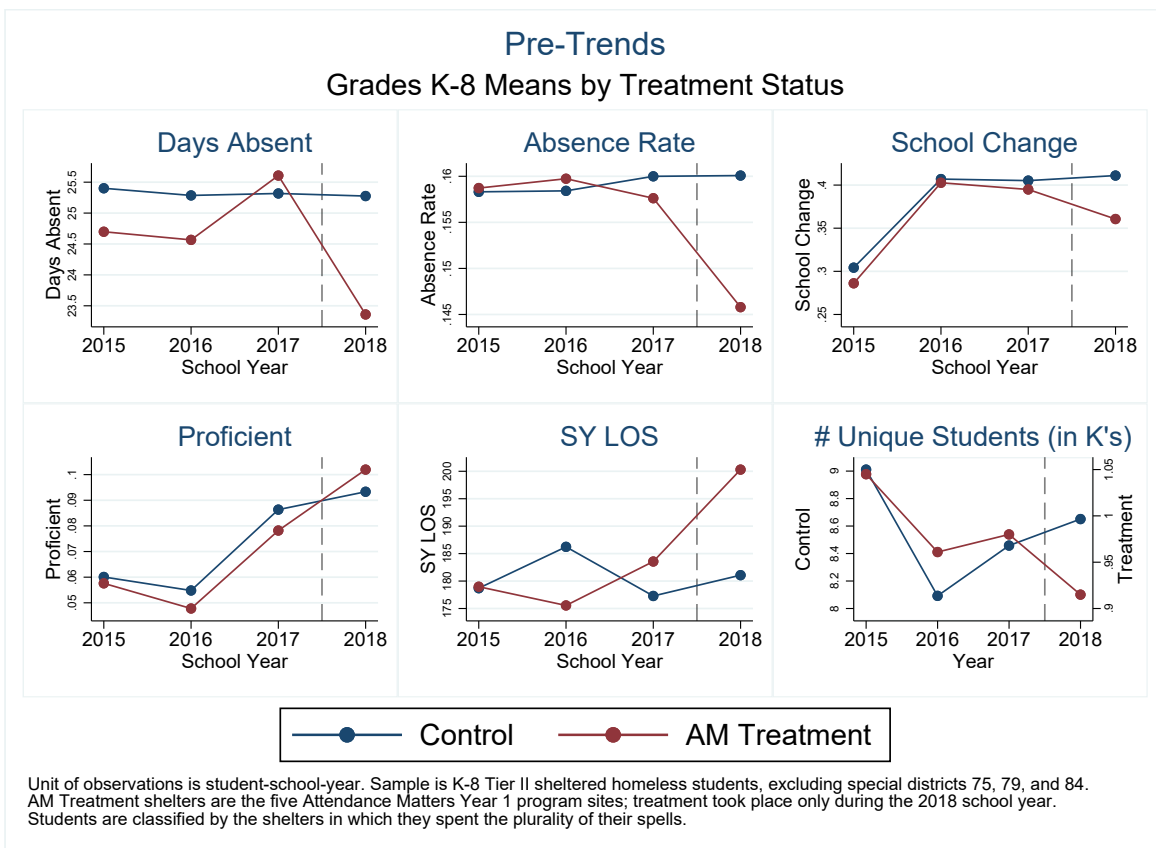


Figure 3

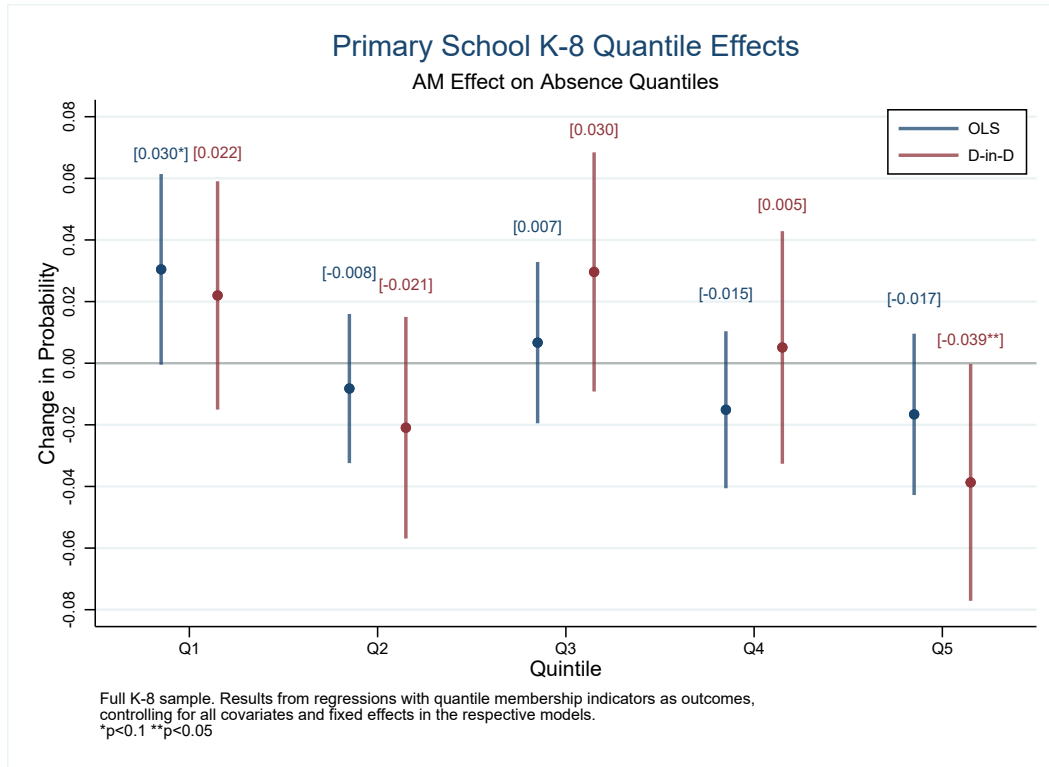
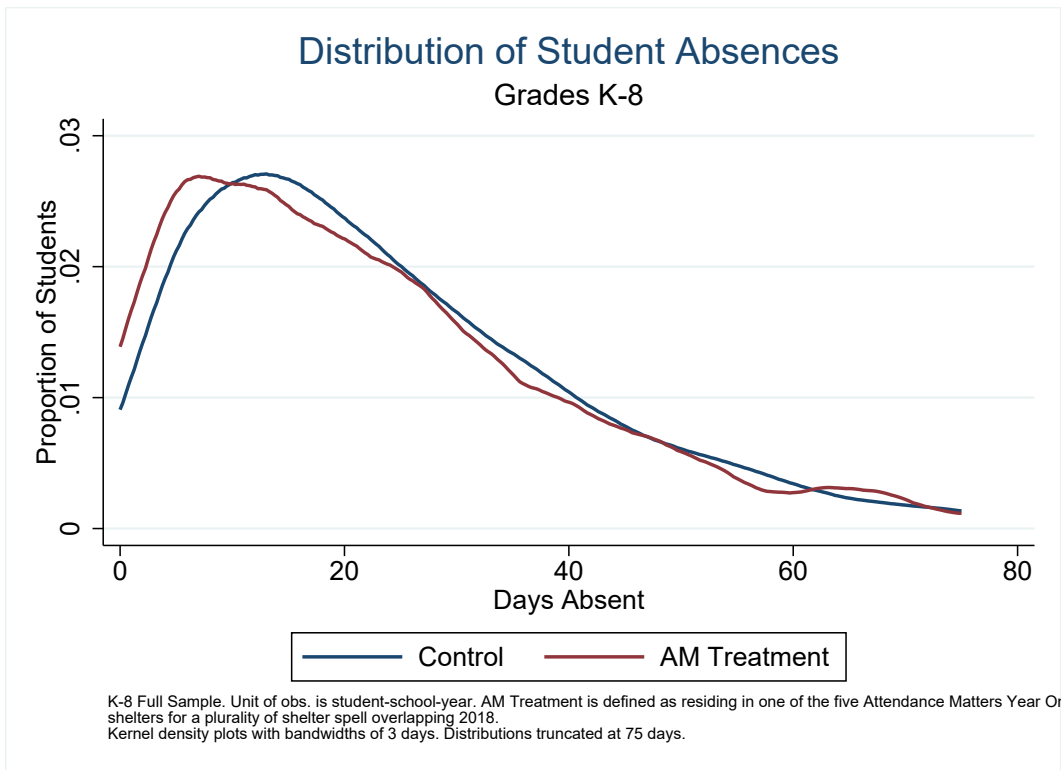


Figure 4



9 References

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A Appendix Tables

Table A.1: Primary School (K-8) Sample Characterization

	No Prior Year Data		Has Prior Year Data		Total	
	Control	AM Treatment	Control	AM Treatment	Control	AM Treatment
Current Year Means						
Total School Days	136.6	131.3	171.0	172.3	163.8	164.6
Days Absent	23.1	18.2	25.9	24.6	25.3	23.4
Days Present	113.5	113.2	145.1	147.8	138.5	141.3
Absence Rate	0.179	0.139	0.155	0.147	0.160	0.146
School Change	0.541	0.520	0.371	0.322	0.407	0.361
Grade	2.5	2.8	3.7	3.8	3.5	3.6
Prior Year Means						
Total School Days	.	.	163.7	166.1	163.7	166.1
Days Absent	.	.	23.8	24.6	23.8	24.6
Days Present	.	.	139.9	141.5	139.9	141.5
Absence Rate	.	.	0.151	0.150	0.151	0.150
School Change	0.186	0.103	0.315	0.320	0.304	0.304
Observations						
Has Current Data	3,782	171	14,213	738	17,995	909
Has Prior Year Data	0	0	14,245	738	14,245	738
Total Obs.	3,844	177	14,245	738	18,089	915

Table A.2: High School (9-12) Sample Characterization

	No Prior Year Data		Has Prior Year Data		Total	
	Control	AM Treatment	Control	AM Treatment	Control	AM Treatment
Current Year Means						
Total School Days	121.0	138.2	152.5	158.7	148.6	157.1
Days Absent	23.8	31.4	38.7	39.0	36.9	38.4
Days Present	97.1	106.8	113.8	119.7	111.8	118.7
Absence Rate	0.230	0.246	0.281	0.270	0.274	0.268
School Change	0.338	0.290	0.262	0.231	0.274	0.238
Grade	10.0	9.8	10.2	10.2	10.1	10.1
Prior Year Means						
Total School Days	.	.	154.6	156.2	154.6	156.2
Days Absent	.	.	31.2	30.6	31.2	30.6
Days Present	.	.	123.4	125.6	123.4	125.6
Absence Rate	.	.	0.216	0.211	0.216	0.211
School Change	0.209	0.182	0.202	0.192	0.203	0.192
Observations						
Has Current Data	554	19	3,940	219	4,494	238
Has Prior Year Data	0	0	4,124	229	4,124	229
Total Obs.	807	31	4,124	229	4,931	260

Table A.3: Elementary School (K-5) Main Results

Outcome	Outcome	Full Sample		Continuing Homeless	
	Mean (1)	OLS (2)	DD (3)	OLS (4)	DD (5)
Days Absent	25.4** (18.7) {13,514}	-2.1** (0.8) {13,477}	-2.6** (1.2) {13,366}	-3.6** (1.0) {6,813}	-1.9 (1.7) {6,686}
Absence Rate	0.160** (0.118) {13,514}	-0.013** (0.005) {13,477}	-0.009 (0.007) {13,366}	-0.021** (0.006) {6,813}	-0.006 (0.010) {6,686}
Chronic Abs.	0.648** (0.478) {13,514}	-0.047** (0.022) {13,477}	-0.054* (0.031) {13,366}	-0.043 (0.029) {6,813}	-0.028 (0.044) {6,686}
Sev. Chr. Abs.	0.291** (0.454) {13,514}	-0.025 (0.020) {13,477}	-0.024 (0.030) {13,366}	-0.051* (0.026) {6,813}	-0.001 (0.041) {6,686}
School Change	0.430** (0.495) {13,564}	-0.035 (0.022) {13,526}	-0.028 (0.033) {13,416}	-0.015 (0.029) {6,841}	-0.052 (0.047) {6,713}
English Proficient	0.197** (0.397) {6,131}	-0.016 (0.023) {6,133}	-0.042 (0.032) {6,002}	-0.037 (0.030) {3,151}	-0.069 (0.050) {3,013}
Math Proficient	0.168** (0.374) {6,131}	0.024 (0.023) {6,133}	0.014 (0.032) {6,002}	0.039 (0.031) {3,151}	0.043 (0.050) {3,013}
Proficient	0.101** (0.302) {6,131}	0.027 (0.019) {6,133}	-0.006 (0.026) {6,002}	0.026 (0.025) {3,151}	0.002 (0.041) {3,013}
Covariates	No	Yes	Yes	Yes	Yes
Prior Year Covs.	No	Yes	Yes	Yes	Yes
Fixed Effects	No	No	Yes	No	Yes
School Years	17,18	17,18	17,18	17,18	17,18

Unit of observation is the student-school-year. Full sample consists of all K-5 students residing in a DHS Tier II shelter during the 2017 and 2018 school years, excluding those in special districts 75,79, and 84. Continuing Homeless sample is subset the Full sample students who also experienced sheltered homelessness in the prior school year. First column gives outcome means for non-Attendance Matters student-school-years (the control group). In columns 2-5, each cell reports the coefficient on Attendance Matters treatment from a separate OLS regression of the row-enumerated outcome on an indicator for treatment, controlling for column-enumerated covariates. Covariates are: controls for circumstances of shelter entry (school year, month of shelter entry, grade level, school borough of origin, shelter borough, in-school-borough placement, non-NYC origin), student characteristics (gender, race, English language learner status, disability status, subsidized school lunch status, year-month age), and family characteristics (family size, number of students in family, homeless shelter eligibility reason, head gender, and head age (continuous)). All regressions also control for quartiles of prior year days absent and absence rate, as well as an indicator for prior year school change; each of these prior year covariates additionally includes a category for unknown, so as not to exclude students whose prior year outcomes are not captured in the data. All covariates are binary or categorical indicators unless otherwise noted. The difference-in-difference specification includes shelter fixed effects, school fixed effects, any year-varying counts of homeless students in each shelter, homeless students in each school, and the number of distinct schools attended by homeless students in each shelter. Standard errors clustered by family are in parentheses. Number of observations are in braces. * $p < 0.10$, ** $p < 0.05$