



**The Impact of Beyond the Bell's
ASSETs Program on
Regular School Attendance Rate**

2012-13 to 2015-16

Prepared for

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Beyond the Bell Branch

By



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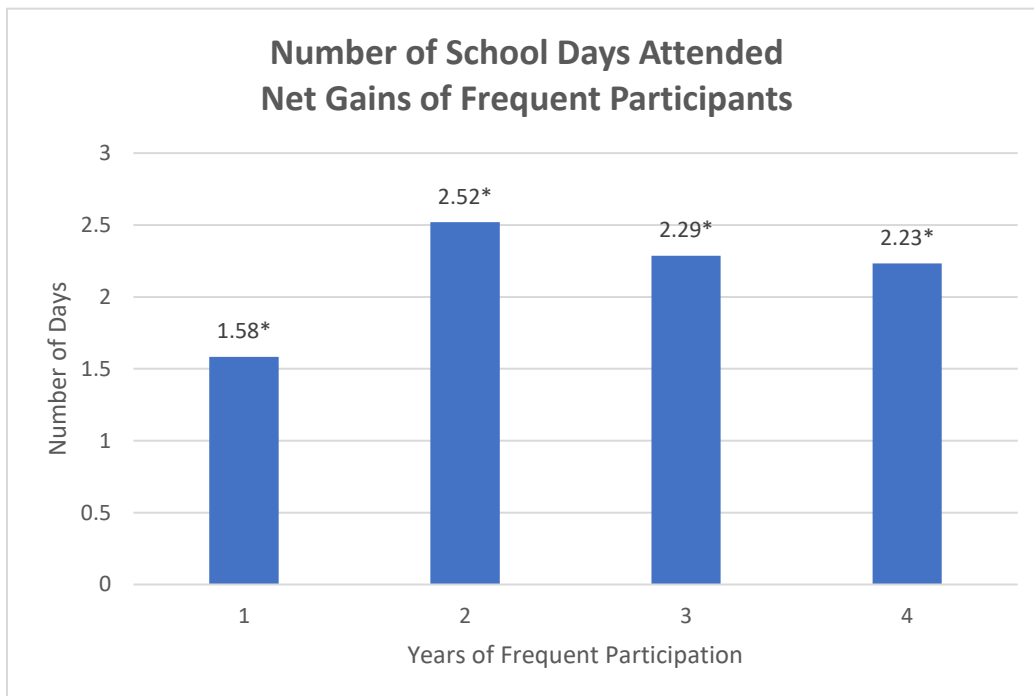
Summary

Using a quasi-experimental matched pair design, the regular school day attendance of 8,103 frequent participants in Beyond the Bell's ASSETs program was compared with a carefully matched control group of non-participants. Frequent participants attended the program 30 or more days for one or more years included in the study (2012-13, 2013-14, 2014-15, and 2015-16). The outcome compared was change in regular school attendance rate (days attended divided by days enrolled) over a baseline year (prior to program entry).

Frequent participants in Beyond the Bell ASSETs programs exhibited significantly greater mean changes in regular school day attendance rates than carefully matched control groups. This finding was consistent for one-, two-, three-, and four-year participants. The chart below shows group differences in regular school attendance rates converted into actual number of days.

During the outcome year:

- One year participants attended a mean of 1.58 more school days than non-participant controls.
- Two year participants attended a mean of 2.52 more school days than non-participant controls.
- Three year participants attended a mean of 2.29 more school days than non-participant controls.
- Four year participants attended a mean of 2.23 more school days than non-participant controls.
- Since each comparison was limited to a single outcome year, it can be inferred that **the average frequent participant in Beyond the Bell's ASSETs program will attend a total of 8.62 more school days than a non-participant over a four-year period.**



*Indicates statistical significance

Purpose of the Study

This study measured the impact of Beyond the Bell (BTB) ASSETs program on the regular school attendance rates of frequent participants at 73 high schools in the Los Angeles Unified School District (LAUSD) between the 2012-13 and 2015-16 school years. The outcome measured was students' regular school attendance rate. Outcomes for a treatment group of 8,103 students who were frequent after-school program attenders were statistically compared with those of carefully matched control groups of non-attenders. Changes were measured between each student's baseline and outcome attendance rate. The effects of frequent after-school program attendance for one, two, three, and four years during high school were examined separately.

Subjects

Subjects were students in grades 9–12 attending high schools within the LAUSD at which federally-funded After School Safety and Enrichment for Teens (ASSETs) programs are operated through Beyond the Bell. Students were selected for inclusion in one of two groups: a treatment group of 8,103 frequent ASSETs program participants and a carefully matched control group of 20,895 students who did not participate in the program. Control group students attended the same schools and were in the same grade levels as the frequent participants. They were also matched based on similarities in gender, ethnicity, free/reduced meal status, English learner (EL) status, special education status, involvement in gifted and talented education, and regular school attendance rate in a baseline year.

Treatment Group Selection

The treatment group was comprised of students who participated in the ASSETs program for a minimum of 30 days, during one or more of the school years for which outcomes were analyzed in this study (2012–13, 2013–14, 2014–15, or 2015-16). Inclusion in the treatment group also required the availability of baseline year data for all variables on which matching was based, and baseline and outcome year data for the outcome measure being compared (regular school attendance rate). The baseline year was defined as the school year prior to the initial year in which each student began participating in the ASSETs program. Using this definition, the baseline year varied among treatment group students. The eighth grade year was considered to be the baseline year for any student who began participating in after school programs prior to high school.

Table 1 shows the numbers of students included in the one-, two-, three-, and four-year participant groups, with respect to specific baseline and outcome years. Years of participation was defined as the number of consecutive years of frequent participation (30 days or more).

Table 1

Number of Frequent Participants Included in Treatment Groups

Baseline Year	Outcome Year	Years of Participation	Number of Frequent Participants with Baseline and Outcome Data
2011-12	2015-16	4	n=398
2011-12	2014-15	3	n=538
2011-12	2013-14	2	n=708
2011-12	2012-13	1	n=917
2012-13	2015-16	3	n=744
2012-13	2014-15	2	n=475
2012-13	2013-14	1	n=765
2013-14	2015-16	2	n=1262
2013-14	2014-15	1	n=795
2014-15	2015-16	1	n=1501

Control Group Selection and Matching

The control group was comprised of students who did not participate in the ASSETs program. They were matched with students in the treatment group using the following criteria. All matching variables were from the treatment student’s baseline year.

1. They were matched directly based on school attended, grade level, gender, ethnicity, free/reduced meal status, EL status, and regular school attendance rate.
2. They were also matched using a weighted propensity score based on grade level, gender, ethnicity, free/reduced meal status, regular school attendance rate, EL status, special education status, and involvement in gifted and talented education. The weights assigned to these factors were generated using a regression model predicting the likelihood (or “propensity”) that each student would enter the after-school program the following year. Frequent program attenders were then matched with comparison group students who had similar predicted propensity.

Up to five matching control students were identified for each frequent program attender. When more than five comparison students were available by direct match, weighted propensity scores were used to select the nearest five matches. Following this procedure, one control student could serve as a match for more than one frequent ASSETs participant from the same school. To avoid overweighting the results for control students, their results were averaged to form a one-to-one comparison with results for each student from the treatment group. Therefore, the control “student” in each matched pair was actually a composite of up to five students rather than a single student. This substantially reduces sampling error.

Table 2 compares characteristics of frequent attenders in the treatment group with those of students in the matched control group.

Table 2

Baseline Data for Frequent Participants and Matched Controls

	Frequent Participants (<i>n</i> = 8,103)	Matched Controls (<i>n</i> = 20,985)	
Outcomes	<i>M</i>	<i>M</i>	Difference
Regular School Attendance Rate	98.3%	98.3%	0.0%
Characteristics	%	%	Difference
Hispanic	92.7%	95.5%	-2.8%
Black	1.5%	0.9%	0.6%
Asian	1.9%	1.4%	0.5%
White	2.6%	1.5%	1.1%
Other ethnicity	1.3%	0.7%	0.6%
Male	51.2%	50.9%	0.3%
Female	48.8%	49.1%	-0.3%
Free/reduced meal	88.0%	90.4%	-2.4%
Special education	6.7%	7.8%	-1.1%
Gifted/talented	14.6%	13.7%	0.9%
Limited English proficient	7.5%	5.2%	2.3%
Parent education			
HS grad or above	21.3%	18.8%	2.5%
Unknown or not HS grad	28.8%	30.4%	-1.6%

Dependent Measure

Regular school attendance rate (calculated annually as the number of school days attended divided by the number of days enrolled for each student) was used as the dependent measure in the study. The mean change in regular school attendance rate for the treatment group was compared with the mean change for matched controls. Mean change was calculated as the regular school attendance rate in the outcome year minus the attendance rate in the baseline year. Net gains were reported as the difference in mean change between the two groups (mean change of treatment group minus mean change of control group).

Findings

Paired samples *t*-tests were used for comparing group means, with an alpha level of .05 used to determine statistical significance. A paired samples *t*-test may be used on a matched-pairs sample when an unpaired sample is used to form a paired sample based on additional variables measured along with the dependent variable of interest to reduce or eliminate confounding effects (David & Gunnink, 1997). Cohen's *d* was used as the measure of effect size, calculated as the difference in the two groups' means divided by the average of their standard deviations. A *d* of 1 indicates that group means differ by one standard deviation, a *d* of .5 indicates that group means differ by half a standard deviation, and so forth.

Table 3 shows that the mean change in regular school attendance rate of frequent participants was significantly greater than matched controls for one-, two-, three-, and four-year participants with moderate effect sizes.

Table 3 (Paired Samples)

Differences in the Mean Attendance Rates of Frequent Participants and Matched Non-Participant Controls

	<i>M</i> *	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i> **
Four-Year Participants	1.24	5.23	397	.001***	0.33
Three-Year Participants	1.27	7.25	1,281	.001***	0.27
Two-Year Participants	1.40	10.03	2,444	.001***	0.28
One-Year Participants	0.88	9.39	3,977	.001***	0.20

*Mean change in attendance rate of frequent participants (from the baseline year) minus the mean change of matched controls.

**Cohen's *d* was used as the measure of effect size.

***Indicates statistical significance.