The Impact of the Los Angeles Team Mentoring Program on School Attendance, Academic Achievement, and On-Time Grade Promotion

2013-14 to 2017-18

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Executive Summary

Los Angeles Team Mentoring (LATM) is a non-profit organization that provides team-based mentoring to combat the overwhelming challenges faced by young people in Los Angeles inner-city middle schools. LATM's unique team-based approach assigns a teacher mentor, a college mentor, and a community/corporate mentor to each youth mentee. The 30 weekly mentoring sessions occur during out-of-school time hours and include an interactive, activity-rich curriculum that helps youth develop a positive self-image, build strong relationships with peers and adults, and learn the importance of teamwork. The curriculum is supplemented with Saturday activities that include college and cultural field trips, and student-led community service projects.

This study addresses the following questions that determine the success of LATM:

When compared with a control group of same-grade peers who attend the same middle schools, do LATM mentees….

- have higher attendance rates?
- have higher GPAs?
- perform better on state standardized tests?
- successfully enroll on time in the 9th, 10th, 11th, and 12th grade at a higher rate?

This study found evidence that LATM has an immediate impact on students in the year they receive mentoring. When compared to a control group, LATM mentees in grades 6-8 who completed at least 15 mentoring sessions in 2017-18:

- had a school attendance rate that was 2% higher,
- had a GPA that was .41 points higher, and
- scored 26 points higher in English-language arts and 34 points higher in math on the California Assessment of Academic Performance and Progress (CAASPP).

Hierarchical linear modeling (HLM) revealed that each of these group differences was statistically significant. Using HLM revealed that LATM mentees were also significantly higher when school site, gender, and ethnicity/race were controlled for using hierarchical linear modeling, meaning that the program demonstrated a consistent and equitable impact.

This study also found evidence that the impact of LATM is sustained through the high school years. Compared to a control group, LATM mentees who received at least 15 mentoring sessions in 8th grade in 2013-14:

- had higher school attendance rates in each of five years (8th through 12th grade),
- had a higher GPA in each of five years (8th through 12th grade), and
- had higher rates of on-time promotion into 9th, 10th, 11th, and 12th grade.

A stepwise linear regression model found a majority of these group differences were statistically significant, and that most of these differences were still present after statistical adjustments were made to account for the non-equivalent demographics of the mentee and control groups.

Section 1
One-Year Impact of LATM Program on School-Related Outcomes of 2017-18 Mentees

The one-year impact of the LATM program on the school attendance, grade point average, and standardized test scores in English-language arts and math of 2017-18 mentees (in grades 6-8) was assessed by comparing outcomes for 402 mentees with a control group of 11,227 same-grade peers who attended the same middle schools. Only mentees who completed at least 15 mentoring sessions during 2017-18 were included in these comparisons. Demographic characteristics of LATM mentees and the control group are shown below in Table 1.

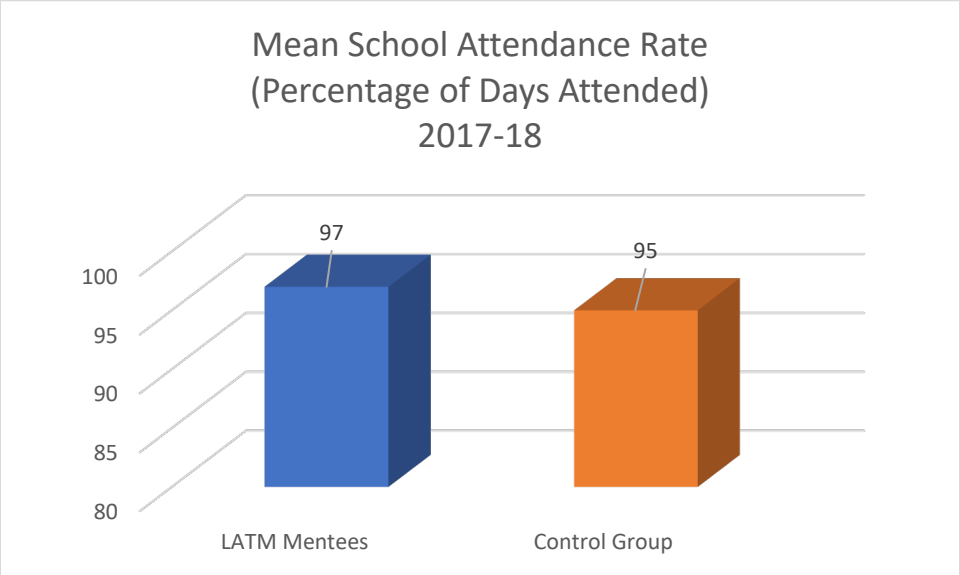
Table 1. Demographic Characteristics of 2017-18 LATM Mentees and Control Group

	LATM Mentees	Control Group
	n=402	n= 11,227
	%	%
Grade 6	44.8	29.0
Grade 7	27.4	35.4
Grade 8	27.9	35.6
Female	57.7	48.0
Male	42.3	52.0
African-American	10.0	10.6
American Indian/Alaskan	0.0	0.2
Asian	2.0	4.6
Filipino	2.5	1.5
Hispanic	80.8	76.9
Hawaiian/Pacific Islander	0.2	0.3
White	4.5	5.9
Free/Reduced Meals	93.5	90.7
English Learner	7.7	13.3
Special Education	13.7	14.3
Gifted and Talented Education	20.6	15.0

School Attendance: One-Year Impact

To measure the one-year impact of the LATM Program on school attendance, the 2017-18 mean attendance rate for mentees was statistically compared with the mean attendance rate for the control group of same-grade peers using hierarchical linear modeling. When compared to non-mentees at the same middle schools, students who were mentored through LATM for 15 or more sessions in 2017-18 had a mean school attendance rate that was 2% higher (see Figure 1 below), a statistically significant difference. These results were statistically similar when school site, gender, and ethnicity/race were controlled for, meaning that the program demonstrated a consistent and equitable impact on school attendance. When statistical adjustments were made to control for demographic non-equivalence between mentees and the control group, the between-group difference remained at 2%. Details of statistical modeling are included as an appendix.

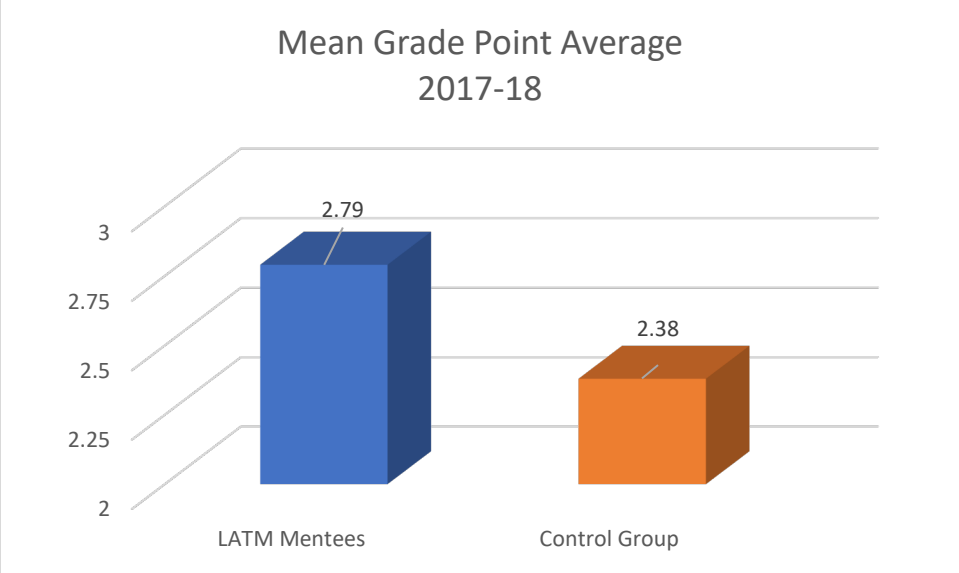
Figure 1



Grade Point Average (GPA): One-Year Impact

To measure the one-year impact of the LATM Program on grade point average, the 2017-18 mean GPA for mentees was statistically compared with the mean GPA for the control group of same-grade peers using hierarchical linear modeling. When compared to non-mentees at the same middle schools, students who were mentored through LATM for 15 or more sessions in 2017-18 had a mean GPA that was .41 points higher (see Figure 2 below), a statistically significant difference. These results were statistically similar when school site, gender, and ethnicity/race were controlled for, meaning that the program demonstrated a consistent and equitable impact on GPA. When statistical adjustments were made to control for demographic non-equivalence between mentees and the control group, the between-group difference was .32 but remained statistically significant. Details of statistical modeling are included as an appendix.

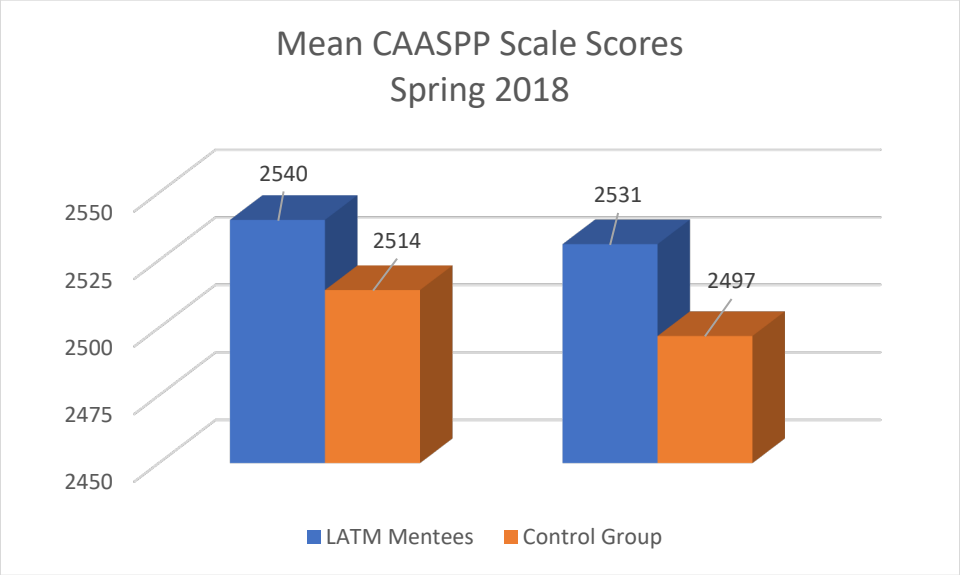
Figure 2



Standardized Test Score in English-Language Arts (ELA) and Math: One-Year Impact

To measure the one-year impact of the LATM Program on standardized test scores, the 2017-18 mean scale scores on the California Assessment of Student Performance and Progress (CAASPP) for mentees were statistically compared with the mean scores for the control group of same-grade peers using hierarchical linear modeling. When compared to non-mentees at the same middle schools, students who were mentored through LATM for 15 or more sessions in 2017-18 had mean CAASPP scores that were 26 points higher in ELA and 34 points higher in math (see Figure 3 below), both statistically significant differences. These results were statistically similar when school site, gender, and ethnicity/race were controlled for, meaning that the program demonstrated a consistent and equitable impact on standardized test scores. When statistical adjustments were made to control for demographic non-equivalence between mentees and the control group, between-group difference were 14 points in ELA and 23 points in math, but both remained statistically significant. Details of statistical modeling are included as an appendix.

Figure 3



Section 2
Longitudinal Impact of LATM Program on School-Related Outcomes of 2013-14 Mentees

The longitudinal impact of the LATM program on the school attendance, grade point average, and on-time grade promotion of 2013-14 mentees (in grade 8) was assessed by comparing high school outcomes for 79 mentees with a control group of 4,369 same-grade peers who attended the same middle schools. Only mentees who completed at least 15 mentoring sessions while in 8th grade during 2017-18 were included in these comparisons. Demographic characteristics of LATM mentees and the control group are shown below in Table 2.

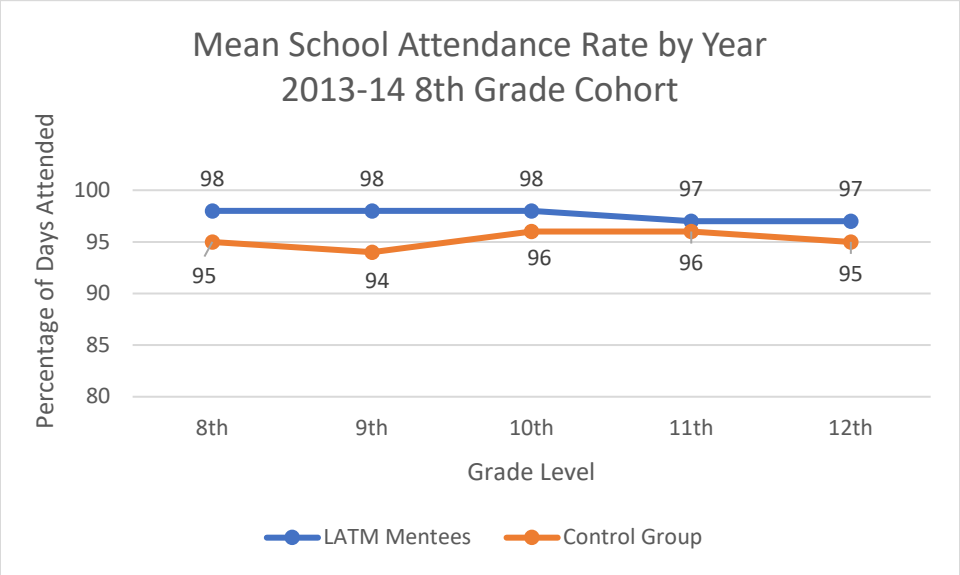
Table 2. Demographic Characteristics of 2013-14 LATM Mentees and Control Group

	LATM Mentees	Control Group
	n=79	n=4,369
	%	%
Female	59.5	47.9
Male	40.5	52.1
African-American	11.4	13.9
American Indian/Alaskan	0.0	0.3
Asian	1.3	6.2
Filipino	3.8	1.8
Hispanic	77.2	71.7
Hawaiian/Pacific Islander	0.0	0.5
White	6.3	5.6
Free/Reduced Meals	89.9	80.8
English Learner	5.3	15.3
Special Education	7.6	11.9
Gifted and Talented Education	23.2	16.9

School Attendance: Longitudinal Impact

To measure the longitudinal impact of the LATM Program on school attendance, the mean attendance rates for 2013-14 mentees were statistically compared with the mean attendance rates for the control group for each of five years (grades 8-12). When compared to non-mentees who attended same middle schools in 8th grade, students who were mentored through LATM for 15 or more sessions in 2013-14 had mean attendance rates that were higher during each of the five years analyzed (see Figure 4 below). These sizes of these differences ranged from 4 percentage points in the 9th grade to 1 percentage point in the 11th grade differences and were statistically significant for each of the five years. Small sample sizes at individual high schools prohibited use of hierarchical linear modeling, so a stepwise linear regression model was used to control for demographic non-equivalence between mentees and the control group. When adjustments were made to account for demographic variables, group differences were reduced by one percentage point at the 9th through 12th grade levels but remained statistically significant for all but the 9th and 11th grade years. Details of statistical modeling are included as an appendix.

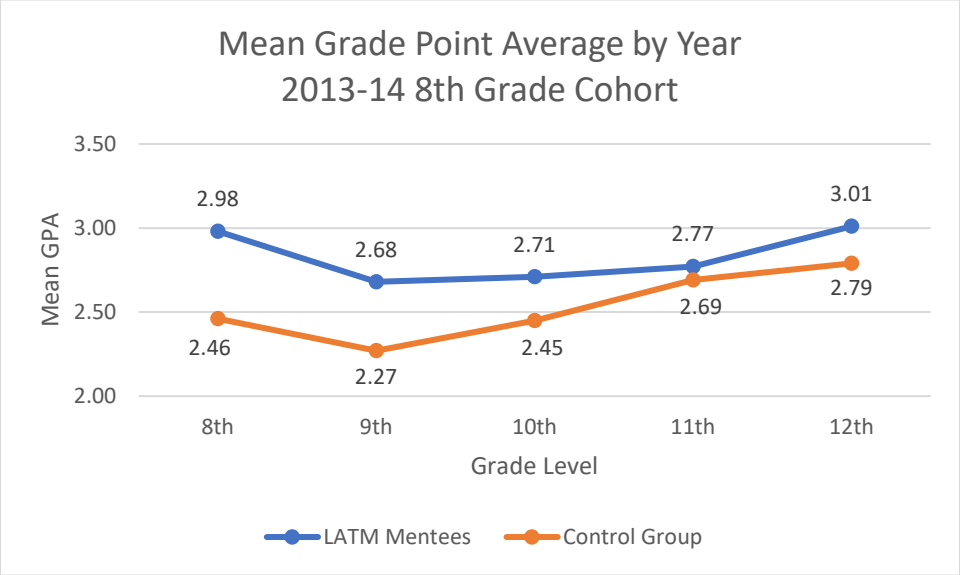
Figure 4



Grade Point Average (GPA): Longitudinal Impact

To measure the longitudinal impact of the LATM Program on grade point average, the mean GPAs for 2013-14 mentees were statistically compared with the mean GPAs for the control group for each of five years (grades 8-12). When compared to non-mentees who attended same middle schools in 8th grade, students who were mentored through LATM for 15 or more sessions in 2013-14 had mean GPAs that were higher during each of the five years analyzed (see Figure 5 below). These sizes of these differences ranged from .52 points in the 8th grade to .08 points in the 11th grade differences and were statistically significant for all but the 12th grade year. Small sample sizes at individual high schools prohibited use of hierarchical linear modeling, so a stepwise linear regression model was used to control for demographic non-equivalence between mentees and the control group. When adjustments were made to account for demographic variables, group differences were reduced at each grade level but remained statistically significant for all but the 11th and 12th grade years. Details of statistical modeling are included as an appendix.

Figure 5

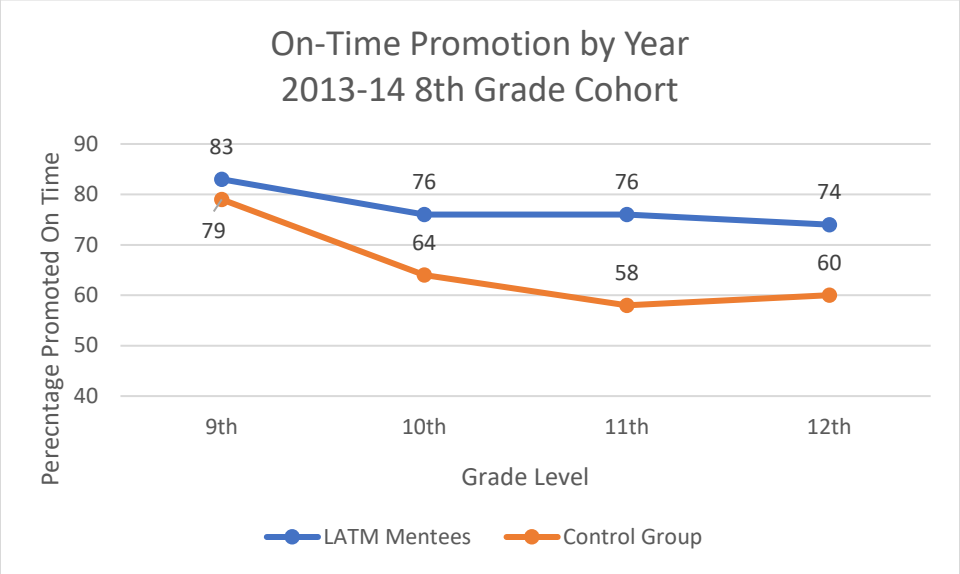


On-Time Grade Promotion in High School: Longitudinal Impact

A major goal of LATM is to prevent students from dropping out by addressing early warning indicators.[1] Allensworth and Easton (2005, 2007) found that 9th graders who had earned the course credits needed for promotion to 10th grade were 3.5 times more likely to graduate than students who ended their 9th grade year off-track. [2][3] The Pathenon Group (2007) found that becoming over age for one's grade level was also predictive of dropping out.[4] Therefore, LATM has identified on-time grade promotion as an indicator of program success.

The percentage of students who were mentored for at least 15 sessions as 8th graders during the 2013-14 school years that were promoted on time to the 9th, 10th, 11th, and 12th grades were compared with a control group of 41,986 students who attended 8th grade in 2013-14 district wide. On-time grade promotion was defined as being enrolled in 9th, 10th, 11th, and 12th grade at a high school in the Los Angeles Unified School District in consecutive years following 8th grade. This comparison found that, compared to 8th graders district wide, 4% more LATM mentees were promoted on time to 9th grade, 12% more to 10th grade, 18% more to 11th grade, and 14% to 12th grade.

Figure 6



[1] Balfanz, R., Herzog, L., & Mac Iver, D. J. (2007). Preventing student disengagement and keeping students on the graduation path in urban middle-grades schools: Early identification and effective interventions. *Educational Psychologist*, *42*(4), 223-235.

[2] Allensworth, E. M., & Easton, J. Q. (2005). *The on-track indicator as a predictor of high school graduation*. Chicago, IL: Consortium on Chicago School Research, University of Chicago.

[3] Allensworth, E. M., & Easton, J. Q. (2007). What Matters for Staying On-Track and Graduating in Chicago Public Highs Schools: A Close Look at Course Grades, Failures, and Attendance in the Freshman Year. Research Report. *Consortium on Chicago School Research*.

[4] Parthenon Group. (2007). *Strategic planning to serve off-track youth: Data review and strategic implications.* Boston, MA: Parthenon Group. Available: http://8.12.35.242/files/Parthenon%20complete%20report.pdf.

Appendix: Statistical Summaries

School Attendance: One-Year Impact (Figure 1)

Predictors	Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	0.95	0.000	0.00	0.95	0.000	0.00
Treatment (Mentee program)	0.02	0.000	0.00	0.02	0.000	0.00
Sex (Male)				0.00	0.307	0.00
African-American				-0.01	0.023	0.00
American Indian/Alaskan				-0.01	0.347	0.01
Asian				0.03	0.000	0.00
Filipino				0.03	0.000	0.01
Hispanic				0.02	0.000	0.00
Hawaiian/Pacific Islander				0.00	0.999	0.01
English Learner				0.00	0.088	0.00
Free/Reduced Meals				0.00	0.022	0.00
Special Education				-0.02	0.000	0.00
GATE				0.01	0.000	0.00
R^2			0.00			0.00

Variance Components			%			
Level 2	School	0.00	0.015		0.00	0.00003
Level 1	Student	0.00	0.98		0.00	0.00372

Grade Point Average: One-Year Impact (Figure 2)

Predictors				Unadjusted Model			Adjusted Model		
				Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept				2.38	0.000	0.08	2.91	0.000	0.07
Treatment (Mentee program)				0.41	0.000	0.05	0.32	0.000	0.05
Sex (Male)							-0.37	0.000	0.02
African-American							-0.56	0.000	0.05
American Indian/Alaskan							-0.45	0.051	0.23
Asian							0.25	0.000	0.06
Filipino							0.26	0.003	0.09
Hispanic							-0.20	0.000	0.04
Hawaiian/Pacific Islander							-0.07	0.661	0.16
English Learner							-0.26	0.000	0.03
Free/Reduced Meals							-0.20	0.000	0.03
Special Education							0.06	0.048	0.03
GATE							0.63	0.000	0.03
			R^2			0.01			0.17
Variance Components			%						
Level 2	School	0.06	0.05			0.06			0.03
Level 1	Student	1.13	0.95			1.12			0.99

Standardized Test Scores: English-Language Arts (Figure 3)

Predictors				Unadjusted Model			Adjusted Model		
				Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept				2514.47	0.000	7.89	2569.50	0.000	5.39
Treatment (Mentee program)				26.03	0.000	3.68	14.37	0.000	3.92
Sex (Male)							-26.61	0.000	1.48
African-American							-45.47	0.000	4.17
American Indian/Alaskan							-5.10	0.786	18.75
Asian							28.03	0.000	4.93
Filipino							8.33	0.219	6.78
Hispanic							-20.79	0.000	3.40
Hawaiian/Pacific Islander							-37.21	0.004	12.96
English Learner							-90.68	0.000	2.48
Free/Reduced Meals							-22.02	0.000	2.66
Special Education							-57.74	0.000	2.31
GATE							94.46	0.000	2.11
Grade 6				-45.43	0.000	3.93	-35.82	0.000	1.88
Grade 7				-15.60	0.000	2.81	-9.94	0.000	1.75
			R^2			-0.03			0.40
Variance Components			%						
Level 2	School	498.23	0.05			620.83			115.54
Level 1	Student	9770.20	0.95			9437.33			5794.23

Standardized Test Scores: Math (Figure 3)

Predictors	Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	2496.81	0.000	8.23	2540.07	0.000	6.01
Treatment (Mentee program)	34.13	0.000	4.18	22.72	0.00	4.53
Sex (Male)				-6.21	0.00	0.000
African-American				-59.69	0.00	0.000
American Indian/Alaskan				-11.61	0.59	0.593
Asian				47.13	0.000	5.70
Filipino				11.30	0.150	7.84
Hispanic				-23.31	0.000	3.94
Hawaiian/Pacific Islander				-45.53	0.00	0.002
English Learner				-85.01	0.00	2.83
Free/Reduced Meals				-21.45	0.00	3.08
Special Education				-72.50	0.00	0.000
GATE				123.49	0.000	2.44
Grade 6	-29.77	0.000	3.95	-18.05	0.000	2.18
Grade 7	-17.63	0.000	2.36	-10.87	0.000	2.03
	R^2		-0.05			0.38
Variance Components		%				
Level 2	723.71	0.05	787.83			126.77
Level 1	12725.11	0.95	12553.23			7753.21

School Attendance: Longitudinal Impact (Figure 4)

Predictors	8th Grade						9th Grade					
	Unadjusted Model			Adjusted Model			Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	0.95	0.000	0.01	0.95	0.000	0.01	0.94	0.000	0.00	0.88	0.000	0.00
Treatment (Mentee program)	0.03	0.001	0.01	0.03	0.001	0.01	0.04	0.041	0.02	0.03	0.120	0.02
Sex (Male)				0.00	0.735	0.00				0.00	0.501	0.00
African-American				-0.01	0.026	0.01				0.02	0.001	0.01
American Indian/Alaskan				-0.02	0.284	0.02				0.02	0.460	0.02
Asian				0.03	0.000	0.01				0.06	0.000	0.01
Filipino				0.02	0.009	0.01				0.07	0.000	0.01
Hispanic				0.01	0.087	0.00				0.04	0.000	0.00
Hawaiian/Pacific Islander				0.01	0.591	0.02				0.04	0.019	0.02
English Learner				-0.02	0.000	0.00				-0.03	0.000	0.00
Free/Reduced Meals				0.00	0.709	0.00				0.03	0.000	0.00
GATE				*Data not available*						0.02	0.000	0.00
R^2			0.07			0.41			0.02			0.17

School Attendance: Longitudinal Impact (Figure 4)

Predictors	10th Grade						11th Grade					
	Unadjusted Model			Adjusted Model			Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	0.96	0.000	0.00	0.95	0.000	0.00	0.96	0.000	0.00	0.96	0.000	0.00
Treatment (Mentee program)	0.02	0.030	0.01	0.01	0.049	0.01	0.01	0.482	0.01	0.00	0.674	0.01
Sex (Male)				0.00	0.030	0.00				0.01	0.000	0.00
African-American				-0.01	0.009	0.00				0.00	0.223	0.00
American Indian/Alaskan				0.01	0.426	0.01				-0.01	0.205	0.01
Asian				0.02	0.000	0.00				0.02	0.000	0.00
Filipino				0.02	0.000	0.00				0.02	0.000	0.00
Hispanic				0.00	0.011	0.00				0.00	0.046	0.00
Hawaiian/Pacific Islander				0.01	0.061	0.01				-0.01	0.242	0.01
English Learner				-0.02	0.000	0.00				-0.02	0.000	0.00
Free/Reduced Meals				0.00	0.724	0.00				-0.01	0.000	0.00
GATE				0.02	0.000	0.00				0.01	0.000	0.00
R^2			0.02			0.18			0.01			0.20

School Attendance: Longitudinal Impact (Figure 4)

Predictors	12th Grade					
	Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	0.95	0.000	0.00	0.94	0.003	0.00
Treatment (Mentee program)	0.02	0.084	0.01	0.01	0.010	0.19
Sex (Male)				0.00	0.001	0.11
African-American				-0.01	0.003	0.01
American Indian/Alaskan				0.00	0.013	0.93
Asian				0.01	0.003	0.00
Filipino				0.01	0.004	0.00
Hispanic				0.01	0.002	0.00
Hawaiian/Pacific Islander				0.01	0.011	0.33
English Learner				-0.05	0.003	0.00
Free/Reduced Meals				0.00	0.002	0.16
GATE				0.01	0.002	0.00
R^2			0.02			0.19

Grade Point Average: Longitudinal Impact (Figure 5)

Predictors	8th Grade						9th Grade					
	Unadjusted Model			Adjusted Model			Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	2.46	0.000	0.02	3.06	0.000	0.07	2.27	0.000	0.01	2.62	0.000	0.03
Treatment (Mentee program)	0.52	0.000	0.12	0.44	0.000	0.11	0.41	0.001	0.13	0.29	0.014	0.12
Sex (Male)				-0.36	0.000	0.03				-0.35	0.000	0.02
African-American				-0.72	0.000	0.07				-0.52	0.000	0.04
American Indian/Alaskan				-0.37	0.164	0.26				-0.27	0.079	0.15
Asian				0.61	0.000	0.08				0.45	0.000	0.05
Filipino				0.46	0.000	0.12				0.36	0.000	0.05
Hispanic				-0.39	0.000	0.06				-0.30	0.000	0.03
Hawaiian/Pacific Islander				-0.35	0.090	0.21				0.06	0.613	0.11
English Learner				-0.50	0.000	0.04				-0.39	0.000	0.02
Free/Reduced Meals				0.00	0.969	0.04				0.01	0.622	0.02
GATE										0.75	0.000	0.02
R^2			0.07			0.41			0.03			0.44

Grade Point Average: Longitudinal Impact (Figure 5)

Predictors	10th Grade						11th Grade					
	Unadjusted Model			Adjusted Model			Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	2.45	0.000	0.01	2.83	0.000	0.03	2.69	0.000	0.01	3.20	0.000	0.04
Treatment (Mentee program)	0.26	0.030	0.12	0.22	0.045	0.11	0.08	0.492	0.12	0.03	0.759	0.11
Sex (Male)				-0.35	0.000	0.01				-0.36	0.000	0.02
African-American				-0.46	0.000	0.03				-0.39	0.000	0.04
American Indian/Alaskan				-0.22	0.103	0.13				-0.27	0.106	0.17
Asian				0.29	0.000	0.04				0.21	0.000	0.05
Filipino				0.20	0.000	0.05				0.07	0.260	0.06
Hispanic				-0.31	0.000	0.03				-0.25	0.000	0.03
Hawaiian/Pacific Islander				0.02	0.876	0.11				-0.32	0.014	0.13
English Learner				-0.23	0.000	0.02				-0.31	0.000	0.03
Free/Reduced Meals				-0.06	0.000	0.02				-0.24	0.000	0.03
GATE				0.60	0.000	0.02				0.48	0.000	0.02
R^2			0.02			0.42			0.01			0.40

Grade Point Average: Longitudinal Impact (Figure 5)

Predictors	12th Grade					
	Unadjusted Model			Adjusted Model		
	Beta	sig.	S.E.	Beta	sig.	S.E.
Intercept	2.79	0.000	0.01	3.16	0.000	0.03
Treatment (Mentee program)	0.22	0.058	0.12	0.17	0.124	0.11
Sex (Male)				-0.38	0.000	0.02
African-American				-0.40	0.000	0.04
American Indian/Alaskan				-0.18	0.255	0.16
Asian				0.08	0.054	0.04
Filipino				0.04	0.414	0.05
Hispanic				-0.28	0.000	0.03
Hawaiian/Pacific Islander				-0.18	0.166	0.13
English Learner				-0.47	0.000	0.03
Free/Reduced Meals				0.00	0.982	0.02
GATE				0.35	0.000	0.02
R^2			0.02			0.35

On-Time Grade Promotion: Longitudinal Impact (Figure 6)

	LATM 8th Grade Mentees 2013-14 (n=79)		District 8th Graders 2013-14 (n=41,986)	
Grade	#	%	#	%
9	65	83.3%	33,335	79.4%
10	59	75.6%	26,851	64.0%
11	58	74.4%	24,178	57.6%
12	55	70.5%	25,148	59.9%