Analysis of the After School Program Component of

City Year Los Angeles's Whole   hool Whole Chil   o el

Commissione   b
Ci   Los n e es

ie   e e i   m   e m n Les ie   n e son

Analysis of the After School Program Component of

City Year Los Angeles's
Whole School Whole Child Model

City Year is an education-focused nonprofit organization that partners with public schools to keep students in school and on track to graduate. Founded in Boston in   . City Year works in   cities across the United States and has international affiliates in London and Johannesburg, South Africa. City Year corps members are   - to   -year-olds who commit to one year of full-time service in elementary or middle schools, or in one- to   -person school-based teams. City Year corps members provide a variety of services including literacy and math tutoring for targeted students, in-class support for teachers, and after school programming that includes one or more tutoring and enrichment activities. City Year developed the Whole School Whole Child (WSWC) model to address the central factors affecting student academic success: attendance, behavior, and course performance

n os n ees   . operations e an in e   ts i i   Y   u i

is report focuses on. Y s after school program in ASP investigating the academic and socio-emotional outcomes associated with students participation in ASP both with and without intensive in-school support. Our analyses of. Y s impact on student performance were guided by three primary research questions

➤ o greater improvements to outcomes occur when a student received both in-school and after school support

➤ o what extent are there positive outcomes for students receiving after school supports only without in-school supports

➤ o students identified as English language learners show differing levels of improvement or benefit

his brief begins with a summary of the study s key findings a description of the study s methodology and a brief explanation of the analyses we conducted ext we describe the characteristics of students in the schools with which. Y partnered and the corps members who served in those schools e then present the findings for our analyses of. Y s impact on students ath and rades and test scores and its impact on students s is report card scores for the - and - school years

Key Findings

➤ Students who attended ASP for more than hours were on average approximately two to three times more likely to increase their rades in the - school year than students who did not N =' p Students attending more than hours of ASP also scored significantly higher on the end of year is eport. ard N =p

➤ Middle school students who participated in. Y s in-school and afterschool interventions were on average times more likely to maintain an or or to improve their ath rade N =p

➤ emale students participating in any ity Year program in were more likely to maintain their or rades or improve their rades in oth on average times more likely N =p and at times more likely N =p over the - school year n - female students were times more likely to improve or maintain their rades N =p

➤ Students who received more than the median in-school tutoring hours in - o also attended ASP scored an average of points higher on the spring than students who attended less than the median in-school hours N =p - his effect was even ar er for female middle school students who ained on average points on the N =p n at S students who participated in ASP for more than the mean number hours and received any in-school support also showed higher ains

➤ ASP participation was associated with positive outcomes for students classified as P or P n addition for ASP participants classified as PS found positive effects on ath outcomes and on the is eport. ard

Study Methodology

or our ana yses   used data co ected y. Y   staff . Y   corps e   ers and. Y   partner sc oo s   ese data
inc ude students acade ic and socia

Corps Member Characteristics

We received data from CYLA for the corps members who served at the sites we included in our analyses for both school years. These data included corps members' race or ethnicity, gender, highest course taken, and highest level of education attained.

Data Analysis

We conducted separate analyses for each outcome (math grades, math test scores, ELA grades, ELA test scores) using different for...

a o e or e o t e ean on t e test q an e aria e $^{dc}_{2}$ is reduced t e ariance in student scores in t e fina ana ysis ut e re ain concerned t at t e ariance in student n t

Program Participation

Students in. Y   s partner schools recei e tar eted support in n is an ua e rts or at durin t e school day in after school pro ra s or at ot ti es . Y   corps e ers p ay an i portant ro e in pro idin t is support y or - in it teac ers to differentiate instruction and or it students one-on-one in a tutorin capacity dditiona y t eir presence as ro e ode s and t eir approac to coac in a so pro ides students it socio-e otiona support e fo o - in section e a ines t e c aracteristics of t ese corps e ers and t e resu tin ours of specia i ed instruction t at students recei ed in   - and   -

Exhibit 3: Characteristics of CYLA corps members serving students in 2012-13 & 2013-14

Corps member characteristics	Percent of corps members	
	2012-13	2013-14
Gender	N= 78	N= 66
Male		
Female		
Race/Ethnicity	N= 70	N= 66
Latino or Hispanic		
White		
Black		
Asian		
Other		
Highest level of education	N= 78	N= 66
Graduate degree		
Bachelor's degree		
Associate's degree		
Some college		
High school graduate		
Some high school		

e ardin eir educationa ac rounds e distri ution of corps e ers at s i s as easured y e i est   e e of a co p eted in sc oo differed across e t o study years n   - _ ore an a uarter of corps e -   ers ere cate ori ed as ot a proficient i e in   - no corps e ers recei ed is desi nation and ess an one percent ere cate ori ed as on y proficient in pre-a e ra or o er i it n   - e ast a ority of corps e ers ere proficient in   e ra . a cu us or i er na yses descri ed ater in is report e p ore e er corps e ers e e of at proficiency eanin fu y interacts it . Y students at perfor ance

Anal

Hours of Support

The number of hours of ELA in-school support that a student received is similar for ... and ... that is on average ... students receiving in-school ... and ... support received an average of ... hours of tutoring in ...- ... and ... and ... hours respectively in ...- ... Students in after school programs however received a much higher dosage of support ... On average students in both years of study received more than three times the number of hours of ESP support than in-school support ... However it is important to note that the range of dosage hours of support received is large ... There were some students received less than one hour of after school support ... while others received hundreds of hours ... According to the median number of hours is also provided in ... with it to provide an additional measure of central tendency ...

Exhibit 6: Change in Lexile scale score, fall to spring			
Type of support	N	Mean Number of Hours	Median Number of Hours
ELA in-school tutoring			
2013-14			

Initial exploratory analyses of the number of hours of support by type of support and by school level suggest an association ... tion between the two variables ... In ...- ... differences in number of hours between the three school levels elementary ... middle and high school are significant within each type of support category ... Similarly there were significant differences in hours of support by school level for ... hours and after-school hours in ...- ... but would not for ... that ... The differences between school groups are particularly noticeable with in ESP hours in both years as elementary school students on average received more than ... hours of after-school support compared to close to ... and ... hours of after-school support among middle and high school students respectively ...

Exploratory Findings in Student Outcomes

Preliminary findings focus on five student outcomes ... change in student ... assessments=' change in student ... grades=' change in student ... assessments=' change in student ... grades=And ... change in student socio-economic index scores ... For each subject we examined students' performance on beginning of year and end of year assessments and changes in subject grades within the same time period ... Grade analysis is limited to students in middle school and high school ... The following section presents preliminary findings that establishes the baseline level of student performance in each subject and changes in performance over the course of each study year ...

Analysis of the A

Preliminary findings indicate that in _-_ students significantly improved their quantile score on the ____ from the beginning to end of year p____. While, however in _-_ there was only a significant negative difference between students' average beginning of year score and end of year score on the periodic assessment and this difference is not statistically significant. While it includes the results of these assessments by school year, the effect size in _-_ indicates an important increase in scores.

There are no statistically significant differences between beginning and end of year grades in math in either of the study years. We used the same method only as _____.

Impact Analyses and Findings

Our analyses of CY's after school program investigated the impact of students' participation in CY programming on five outcome variables: the Scholastic Math Inventory (SMI), the Scholastic Reading Inventory (SRI), math grades, ELA grades, and the Miss Report Card (MRC). We analyzed each outcome separately using a pooled CY, pre-CY, post-CY, and non-CY

RQ1. Do greater improvements to outcomes occur when a student received both in-school and after school support?

ENGLISH LANGUAGE ARTS (ELA) OUTCOMES. e found posi

➤ Students included on the attendance and or major focus lists were es

➤ n iso atin t e effect of ᵃᵖ participation on   s e found so e positi e. Y effects on   ᵖ and   ᵖ students

ᵖ students o attended   ore t an t e edian nu er of ᵃᵖ ours scored on a era e   points i er on t e sprin   N   =p

ᵖ students o attended t e edian nu er of ᵃᵖ ours or   ore scored on a era e   points i er on t e sprin   N   =p

➤ e a nitude of   ains on t e   aried y s oo e e a on   ᵖ and ᵖ students in e e entary and id-d e s oo

e entary s oo   ᵖ students o participated in ᵃᵖ for t e edian nu er of ours or ore s o ed an a era e ain of   points on t e   N   ='p

idd e s oo   ᵖ and ᵖ students o partici-pated in ᵃᵖ for t e edian nu er of ours or ore s o ed a era e ains of respecti e y   points and   points on t e   N   =p   and p   re-specti e y

MATH OUTCOMES

➤   ᵖ students o participated in ᵃᵖ re ard ess of nu er of ours of support ere ti es ore i e y to aintain or i pro e t eir a rades N   =p

➤ e a e ᵖ and ᵖ students respecti e y ere and ti es ore i e y to aintain or i pro e t eir a rade co pared to a e students N   =p   and p   respecti e y

➤ e ard ess of types of support pro ided to t e   ᵖ students scored si nificant y o er on t e sprin   N   = - p

SKILLS REPORT CARD (SRC) OUTCOMES

➤   ᵖ students recei in any type of support fro . Y si nificant y i pro ed t eir . score in   - y an a -era e of   points N   =p   n - ᵖ students scored on a era e   points i er on t eir sprin . N   =p

ADDITIONAL FINDINGS

n near y a ana yses of t e outco es associated it t e ef-fect of in-s oo support and ᵃᵖ e found t at t e ase ine easure su as fa   fa and fa . score is si nificant y and ne ati e y associated it t e fina out-co eanin students o score i er in t e e innin of t e year on t ese easures are i e y to s o decreased ains on t eir fina outco es

e a so inc uded de o rap ic aria es to contro for corps e er and student c aracteristics t er t an student en-der none of t ese aria es pro ed to a e a si nificant ef-fect on student outco es

Concluding Observations and Options for Additional Research

Appendix A:
Variables and Statistical Models

Variables and Statistical Models

We used multiple linear and logistic models to determine the effects of... program... on the five outcome variables of interest... grades... grades and... is... ior. We exist for school years ... and ... The variables included in the final models are listed below in Exhibit ... with explanations of how they were coded from the original data. We provided to ... the estimated coefficients and standard errors produced for the variables in the final prediction models are shown in subsequent exhibits accompanied by a short description of the models and analytic methods.

Exhibit A1:	
Summary of variables used in the analysis and variable coding	

Variable label	Description
Scholastic Reading Inventory (SRI)	Students' change in SRI exile score between fall and spring served as the outcome variable for ... test analyses
Scholastic Math Inventory (SMI)	Students' change in SMI exile score between fall and spring served as the outcome variable for ... math test analyses
Periodic Assessment (ELA)	For ... test analyses our outcome variable for ... test analyses was the change in students' periodic assessment score between fall and spring
Periodic Assessment (Math)	For ... test analyses our outcome variable for math test analyses was the change in students' math periodic assessment score between fall and spring
Grades (ELA)	... cross both years we used this indicator variable as the outcome for ... grade analyses if a student had improved their grade or maintained an A or B grade between the end of the first three grading period and the end of the school year we coded this variable ... We coded this variable as ... if the students' grade had one down over the school year or if the student had maintained a ... or ... grade between the end of the first grading period and the end of school year
Grades (Math)	We constructed this outcome variable for math grades across both years applying the same process to students' math grades as is described for ... grades above
Skills Report Card (SRC)	We calculated the change in students' SRC... scores over the course of the year by subtracting the students' score of the first and last administration ... for ... ig SRC had scores for a six administrations of the SRC. We used the score that the latest in the school year administration time ... as the final administration ... is also used to keep in the analyses students who were missing data for time but who had complete data for administration number... As a check of our decision to calculate the mean across administrations we conducted analyses ... internal consistency of the items ... yielded a ... ron ... which suggested a ...

Exhibit A2:
Multilevel mixed effects models predicting 2013-14 school year change in Scholastic Reading Inventory (ELA) assessment scoresree

Exhibit A3:
Multilevel mixed effects models predicting 2013-14 school year change in Scholastic Mathematics Inventory (Math) assessment scores

Variables	Coefficient (SE)
ntercept β	
ttended ISP for or ore hours ean hours and recei ed to hours of at in-school tutorin \n-school ath t to in ho s within 5th to th p c ntil s γ	
ttended ISP for or ore hours ean hours and recei ed to hours of at in-school tutorin \n-school t to in ath ho s within 50th to 7 th p c ntil s γ	
ttended ISP for or ore hours ean hours and recei ed ore t an hours of at in-school tutorin \n-school ath t to in ho s within 75th to 00th p c ntil s γ	
P students γ	-
P students γ	-
e a e students γ	- -
a ase ine β score γ	- -
Students on t e ttendance ocus ist γ	- -
Students on t e e a ior ocus ist γ	-
e a e corps e ers γ	-
Sq oo - e e Percent of corps e ers o too ca cu us γ	-
Sq oo - e e Percent of corps e ers or in it a student of t e sa e race γ	- -
ecei ed to hours of at in-school tutorin \n school t to in ho s within 5th to th p c ntil γ	-

A

Exhibit A6:
Multilevel mixed effects models predicting 2013-14 school year change in Skills Report Card scores

Variables	Coefficient (SE)
Intercept, β_{00}	
ttended ASP for or ore hours Median S hours=80 γ	
ecei ed hours or ore in-school at or tutorin Median hours o all in-school t to in 7 hours γ	
P students γ	
P students γ	
e a e students γ	
a ase ine . score γ	
Students on t e ttendance ocus ist γ	
Students on t e a ior ocus ist γ	
School - e el ean an e in . scores γ	
Random effects	
School ean u e e - effect r_i	
a d χ	
N School s	

indicates p = indicates p = '
indicates p ar ina si nificance

Exhibit reads: Students who attended ASP for more than the median number of hours scored 0.18 points higher (out of 5 points) on the SRC between fall and spring.

Exhibit A8:
Multilevel mixed effects models predicting 2012-13 school year change in Math periodic assessment scores

Variables	Coefficient (SE)
Intercept, β_{00}	
ttended SP for or ore hours an hours and recei ed - ours of at in-school tutorin \n-school ath t to in ho rs ithin 5th to th p c ntil s γ	-
ttended SP for or ore hours an hours and recei ed to ours of at in-school tutorin \n-school t to in ath ho rs ithin 50th to 7 th p c ntil s γ	-
ttended SP for or ore hours an hours and recei ed ore t an ours of at in-school tutorin \n-school ath t to in ho rs ithin 75th to 00th p c ntil s γ	-
P students γ	
P students γ	-
P students γ	
e a e students γ	-
a ase ine periodic assess ent score γ	-
Students on t e ttendance ocus ist γ	-
Students on t e e a ior ocus ist γ	-
e a e corps e ers γ	-
Sc oo - e e Percent of corps e ers o too ca cu us γ	- -
Sc oo - e e Percent of corps e ers or in it a student of t e sa e race γ	
ecei ed - ours of at in-sc oo tutorin \n school t to in ho rs ithin 5th to th p c ntil γ	-
ecei ed to ours of at in-sc oo tutorin \n school t to in ho rs ithin 50th to 7 th p c ntil γ	-
ecei ed ours of at in-sc oo tutorin \n school t to in ho rs ithin 50th to 7 th p c ntil γ	-
ttended SP for or ore hours M an S ho s=60 γ	
Random effects	
Sc oo ean u e e - effect r	-
\ a d χ	
N Sc oo s	

indicates p =indicates p ='
indicates p ar ina si nificance

Exhibit reads: Controlling for all other variables in the model and for the nesting of students in schools, students with higher fall baseline scores scored significantly lower, losing 0.42 points, on the spring administration of the math periodic assessment.

Exhibit A9:
Logistic regression model predicting school year 2012-13 change in ELA grade

Independent variable	Odds ratio (SE)
Intercept	
Attended ASP for ___ to ___ hours *Attendance hours within 25th to ___th percentiles*	
Attended ASP for ___ - ___ hours ASP *Attendance hours within 50th to 7___th percentiles*	
Attended ASP for ___ or more hours *Attendance hours within 75th to 100th percentiles*	
Received ___ or more hours of ___	

Exhibit A10:
Logistic regression model predicting
school year 2012-13 change in math grade

Independent variable	Odds ratio (SE)
ntercept	
ttended RP for - ours / ttndanc ho s ithin 5th to th p c ntil s	
ttended RP for - ours RP / ttndanc ho s ithin 50th to 7 th p c ntil s	
ttended RP for or ore ours / ttndanc ho s ithin 75th to 00th p c ntil s	
ecei ed - ours of in-sc oo at tutorin / \n-school ho s in 5th to th p c ntil s	
ecei ed - ours of in-sc oo at tutorin / \n-school ho s in 50th to 7 th p c ntil s	-
ecei ed or ore ours of in-sc oo at tutorin / \n-school ho s in 75th to 00th p c ntil s	
P students	-
P students	-
P students	-
e a e students	-
Students on t e ttendance ocus ist	-
Students on t e q a ior ocus ist	
- first uarter at rade	
Sc oo - e e Percent of corps e ers or in it a student of t e sa e race	- -
Sc oo - e e Percent of corps e ers o too ca cu us	-
Pseudo -s uared	

indicates p = Indicates p =
indicates p ar ina si nificance

Exhibit reads: Students classified as RFEP students were 1.55 times more likely to improve or maintain their ELA grade during the 2012-13 school year.

School fixed effects models only slightly improved model fit. Final model fits data significantly better than the empty model, p 0.001.

Exhibit A11:
Multilevel mixed effects models predicting 2012-13 school year change in Skills Report Card scores

Variables	Coefficient (

POLICY STUDIEST