

Effects of YMCA High School Youth  
Institute on Grades, Attendance and  
Standardized Test Scores  
(2011 – 2012)

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## **Introduction**

The YMCA of Greater Long Beach High School Youth Institute is an innovative program that uses technology as an integral mechanism for promoting positive youth development and enhancing the academic success and career readiness of low-income, culturally-diverse high school students. The goals of the Youth Institute are to : (a) improve the technology, career, leadership and decision-making skills of these youth to promote readiness for higher education or career entry after graduation, (b) improve academic achievement and stimulate interest in higher education among low-income, culturally-diverse, urban high school youth, and (c) promote bonding to pro-social adults and community attachment among urban youth to ensure that they remain engaged in their schools and communities. Classes enter each summer with an intensive eight-week program. Upon graduation from the summer program, participants become “High School Youth Institute Alumni,” who are then able to voluntarily participate in a wide range of year-round programs throughout their high school, and sometimes, even their college years. Year-round involvement opportunities include, but are not limited to, digital art labs, homework assistance, academic advising, personal/home advising, community service, equipment check-out, field trips, paid technology and mentoring assignments, community leadership positions and social work support. The program has been in operation since June, 2001. This is the sixth year in which the program effects on grades, attendance, and test scores have been explored.

## **Methods**

### **Data Collection**

In order to be included in the grade evaluation, both the student and their parent signed an informed consent allowing researchers to collect their grades, attendance and

test scores from the Long Beach Unified School District (LBUSD). This information was collected using only school district identification numbers. Research staff from LBUSD then randomly selected a comparison sample of high school students who were matched to the Youth Institute sample based on gender, ethnicity and year in school. Approximately five comparison students were matched for each Youth Institute participant. The district provided academic grade point average (GPA), total GPA, cumulative academic GPA, cumulative total GPA, absences, truancies, English Language Arts (ELA) and Math content standard test scores for 2011-2012 academic year. The pre-test measures for these analyses were taken from the end of the 2010-11 academic year, and the post-test measures were taken at the end of the 2011-12 academic year.

### **Sample Description**

One-hundred, twenty (63%) of the High School Youth Institute participants who finished the program in the summers of 2008, 2009, 2010, and 2011 had both parent and child informed consents, and some useable data for the 2011-12 academic year. However, due to a data collection issue with LBUSD, no matched comparison youth were provided for 9<sup>th</sup> graders, therefore, 22 HSYI youth had to be removed from the analyses. The remaining 98 (52%) HSYI youth are included in these analyses. Forty-five (46%) of the 98 HSYI youth were considered active (attended 10 or more activities in the current year or 30 or more over the past two years) at the HSYI during the 2011-12 academic year. For the purposes of these analyses, YI youth were divided into “Active,” and “Non-Active” groups. Table 1 displays the demographic characteristics of the “Active” YI sample ( $N = 45$ ), the “Non-Active” YI sample ( $N = 53$ ), and the matched, comparison sample ( $N = 485$ ). While there were no significant gender or ethnic differences between the three groups, significant differences were found for grade level. Specifically, the Active HSYI

group had more 10<sup>th</sup> graders (37.8%) and fewer 12<sup>th</sup> graders (37.8%), compared to the Non-Active HSYI group (11.3% and 56.6% respectively) and the comparison group (23.7% and 46.4% respectively).

Table 1  
Demographics of YMCA HSYI Active Participants, HSYI Non-Active Participants and Comparison Students for the 2011 – 2012 Academic Year

	Active HSYI Participants (N = 45)		Non-Active HSYI Participants (N = 53)		Comparison Students (N = 485)	
	%	N	%	N	%	N
<b>Gender</b>						
Male	60%	27	55%	29	58%	280
Female	40%	18	45%	24	42%	205
<b>Ethnicity</b>						
Latino	58%	26	47%	25	52%	255
Asian-American/Pacific Islander	22%	10	15%	8	23%	110
African-American	11%	5	30%	16	19%	90
European-American	9%	4	8%	4	6%	30
<b>Grade**</b>						
10 <sup>th</sup> Grade	38%	17	11%	6	24%	115
11 <sup>th</sup> Grade	24%	11	32%	17	30%	145
12 <sup>th</sup> Grade	38%	17	57%	30	46%	225

\*\*Significant at the .05 level

### Analysis

Multivariate analysis of co-variance (MANCOVA) was used to compare outcome differences between High School Youth Institute and comparison students on academic grade point average (GPA), total GPA, cumulative academic GPA, cumulative total GPA,

absences, and English-Language-Arts (ELA) and Math content standard test scores while controlling for baseline measures. Two different analyses were done; the first compared all HSYI participants and the matched comparison students, while the second compared “Active” HSYI participants and matched comparison students.

### **Comparisons between HSYI Participants and Comparison Students on Grades, Absences, Truancies, ELA and Math Content Standard Test Scores for the 2011-12 Academic Year**

As shown in Table 2, HSYI participants had somewhat higher English Language Arts content standard scores,  $F(1, 296) = 3.36, p < .10$ , than comparison students. (I

HAVE NO IDEA WHY THERE ARE SO MANY MISSING ACADEMIC GPAs – I

WENT BACK TO THE LBUSD EXCEL FILE TO CHECK AND THIS IS CORRECT)

Table 2

Comparisons of Grades, Absences, Truancies and ELA and Math Content Standard Test Scores between HSYI Participants and Comparison Students for the 2011-12 Academic Year

Measure	HSYI Participants		Comparison Students		F-Value
	Adjusted Mean	N	Adjusted Mean	N	
Academic GPA	2.38	71	2.41	371	.08
Total GPA	2.60	96	2.59	485	.01
Cumulative Academic GPA	2.46	90	2.47	485	.27
Cumulative Total GPA	2.58	90	2.60	485	.35
Absences	8.78	98	9.43	485	.35
Truancies	4.13	98	4.98	485	.89
Content Standards					
English Language Arts†	346.13	47	337.02	252	3.36*
Math†	315.98	42	309.44	230	.73

\*\* Significant at the .05 level

\* Approaching significance at the .10 level

†10<sup>th</sup> and 11<sup>th</sup> graders only

### Comparisons between Active HSYI Participants and Comparison Students on Grades, Absences, Truancies, ELA and Math Content Standard Test Scores for the 2011-12 Academic Year

As shown in Table 3, Active HSYI participants had significantly higher academic GPA,  $F(1, 314) = 5.59, p < .05$ , and math content standard scores,  $F(1, 182) = 3.99, p < .05$ , than comparison students. Active HSYI participants also had somewhat higher total GPAs than comparison students,  $F(1, 316) = 3.44, p < .10$ .

Table 3

Comparisons of Grades, Absences, Truancies, ELA and Math Content Standard Test Scores between Active HSYI Participants and Comparison Students for the 2011-12 Academic Year

Measure	Active HSYI Participants		Comparison Students		F-Value
	Adjusted Mean	N	Adjusted Mean	N	
Academic GPA					
Total GPA					
Cumulative Academic GPA					
Cumulative Total GPA					
Absences					
Truancies					
Content Standards					
English Language Arts†					
Math†					

\*\* Significant at the .05 level

\* Approaching significance at the .10 level

† 10<sup>th</sup> and 11<sup>th</sup> graders only

### Conclusions

One of the primary goals of the YMCA Youth Institute is to help promote better academic success for low-income, culturally-diverse youth. In the current study, YI

participants were compared with a random, matched comparison group of high school students to determine the effects of the YI on grades, attendance, and test scores. Among all YI participants, YI youth scored significantly higher on both English Language Arts and Math content standard measures, and had somewhat fewer absences than comparison students. Active YI participants evidenced significantly higher academic GPA and Math content standard scores, and had somewhat higher total GPA than comparison students. The findings related to GPA among the Active YI participants are particularly noteworthy given that, in the prior year, their academic and total GPAs were significantly lower than the comparison group. These findings support previous studies that link high-quality afterschool programs to better achievement on standardized test scores (Vandell, Reisner & Pierce, 2007; Weissberg & Durlak, 2007) and school grades (Evers, 2010; Frankel, Streitburger & Goldman, 2005) for middle school and high school students..

The findings here, combined with those from the last two years, do strongly indicate that YI involvement does help youth to do better academically than their non-involved peers. This is important given that low-income youth often struggle more academically than their higher economic status peers. The YI should continue to offer academic support services and encourage participants to do well in school so this trend can continue.

## References

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