



LA84 Foundation 2013-14 Evaluation Report
Complete Findings Report

Prepared for LAUSD Beyond the Bell & the LA84 Foundation

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Executive Summary

The following report details descriptive findings from the 2013-14 academic year and longitudinal findings, when possible, to understand the current status and historical trends in sports program attendance, implementation quality, and student participant outcomes for the partnership between the LA84 Foundation and Los Angeles Unified School District (LAUSD) Beyond the Bell (BTB). Three primary data sources were used to explore these evaluation priorities: (1) sports attendance records from LAUSD middle school sites, (2) observational data of sports activity quality, (3) students' academic records. Several useful and interesting findings emerged from these data sources.

Participation in Sports Activities

- **The number of students involved in LA84 Foundation sports activities, and the average level of participation by individual students, continues to rise dramatically.**
 - LA84 Foundation sports have grown in total participation (all sports, with duplicate students) and in the number of individual students participating (all students, with duplicate sports).
 - LA84 Foundation sports programs engage more than 10% of all students in the schools where programs are located.
 - High participation in LA84 Foundation sports has risen, while low (casual) participation has declined over time since 2008-09.
 - The proportion of students participating in multiple sports has increased.
 - While most LA84 Foundation sports participants are male, the number of female participants has grown steadily over time.
 - Although most LA84 Foundation sports participants are Hispanic, reflecting the populations of their schools, the percentage of participants who are Black is double the non-participant percentage of students who are Black in the same schools.

Quality of Sport Activities Implemented

- **The large majority of sports sessions were *satisfactory or superior* (i.e., activity selection, activity setting, staff performance, and student behavior).**
 - Activities are most effectively structured for success when program leaders intentionally select and manage appropriate activities for each session and have access to adequate space and equipment.
 - In highly rated sports sessions, positive coaching strategies were also frequently observed. Staff were observed providing strong support for student development, giving appropriate feedback to scaffold student learning, possessing high levels of sports knowledge, maintaining strong organization over the session, and interacting positively with student participants.
- **When activities received high ratings for staff performance, they were also more likely to have high ratings for student behavior, demonstrating an important relationship between staff and student behaviors.**

- Positive student participation was characterized by interest, concentration, respect for peers and staff, cooperation and teamwork.
- **There was a lack of variability across observational findings, which demonstrates some potential limitations of the observational tool.**
 - It is recommended that the BTB observational tool be revised to more clearly examine important processes relevant for promoting positive youth development/skill development in sports activities.

Sports Participant Outcomes

- **English Learners among LA84 Foundation sports participants show higher rates of redesignation to English-proficient status and greater gains on proficiency tests than matched comparison students.**
 - Overall, LA84 Foundation sports students redesignated at a faster rate than non-participants (1% to 2%). They showed gains averaging over four scaled score points more than non-participants. These results are educationally important given the potential for the development of basic English communication skills during sports.
- **LA84 Foundation sports participants demonstrate greater success in the transition to high school than matched comparison students.**
 - Regular participation in LA84 Foundation sports (more than 15 days) during 8th grade is associated with higher pass rates for Algebra 1 and more advanced mathematics courses in grades 9 and 10 compared to a constructed comparison sample of non-sports program participants.
 - Regular participation in LA84 Foundation sports in grade 8 was associated with higher GPA marks in core courses in grades 8 through 10 compared to non-participants.
 - There was no consistent relationship between LA84 Foundation sports participation in middle school and school-day attendance, or academic test scores.
 - Given the available data sources, it is challenging to explain why sports participation is linked to later academic differences given the non-academic nature of the program implemented and the lack of relationships with school-day attendance.

Key Recommendations

- Strengthen **targeted recruitment efforts** including sixth grade students, females, and English-language learners, and continue to facilitate multiple-sport participation and student retention across the middle school years.
- Develop a **stronger conceptual understanding** of sports participation, using a logic model, to inform broader explorations of participant outcomes and identify important mechanisms for student development. This logic model can inform evaluation and quality improvement.
- Improve the **measurement tools** employed for evaluation purposes, including using a more comprehensive observational system, gathering more participant-level data using surveys or interviews/focus groups, and leveraging other available data sources.
- Continue to invest in **continuous quality improvement** efforts informed by evaluation data to ensure that program activities maximize positive student experiences and most effectively produce intended developmental impacts.

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Introduction

Since its inception following the 1984 Olympic Games in Los Angeles, California, the LA84 Foundation has supported the development of a sports culture in the greater Los Angeles area through the provision of instrumental and financial support to organizations serving children and youth. Since 2007, the LA84 Foundation has partnered with Los Angeles Unified School District (LAUSD) Beyond the Bell (BTB) to support sports programming for middle school afterschool program participants across the district in its afterschool program providers.

Sports activity participation has been linked to positive youth developmental outcomes across domains, including physical health outcomes (i.e., increased cardiovascular fitness, strength, endurance, and flexibility), social and emotional competencies (i.e., self-knowledge and emotion regulation, psychological resilience) and academic performance (Bartko & Eccles, 2003; Coatsworth & Conroy, 2007; Eccles et al., 2003; Le Menestrel & Perkins, 2007). Sports activities are uniquely poised to contribute to youth development because these contexts possess many qualities essential to the promotion of positive youth development (PYD), including close relationships with adult staff members, positive peer interactions, psychologically and physically safe environments, challenging activities, and opportunities for skill building and decision making (Fraser-Thomas et al., 2005; Petitpas, Cornelius, & Van Raalte, 2008). Given that these activities are unique developmental contexts, it is essential that sports organizations make strong commitments to evaluation as a means to understanding current operations, trends in participation among students, and how program participation is associated with intended participant outcomes. The following report represents the first year of collaboration between these organizations and the Claremont Evaluation Center (CEC) to examine evaluation data sources.

The 2013-14 evaluation report is organized around three primary components. Findings reported here are descriptive in nature, providing an understanding of the current status and historical trends in sports participation trends, program implementation, and student outcomes.



First, participation in sports activities was examined by gathering attendance records across the 2013-14 academic year for sports participants and examining 2013-14 trends by student characteristics (i.e., gender, grade, ethnicity). This report also includes historical trends in attendance records across previous academic years, as early as 2008-09. To gain a clear

picture of the quality of sports activity implementation, the second section summarizes the observational findings for several facets of program quality including activity selection, activity setting, staff performance, and student behaviors. Third, to capture sports participant outcomes, academic records were used to examine both interim indicators (i.e., school attendance, English language learner status) and long-term student outcomes (8-10th grade course completion, core course grade point average, and test scores) associated with sports participation. When possible, sports participants were compared to a match sample of non-participants.

Section 1. Attendance Findings & Trends

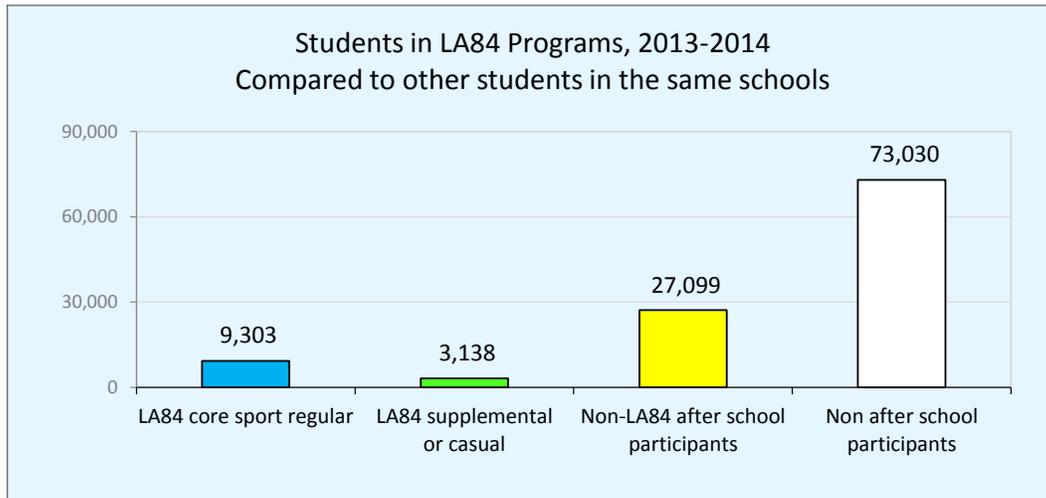
The first component of the evaluation process was to examine the attendance patterns for the 2013-14 academic year (overall and by participant characteristics), as well as examine longitudinal trends in sports participation since the 2008-09 academic year. These analyses will focus primarily on the four “core” sports offered by the LA84 Foundation/BTB partnership, unless otherwise specified. Through the 2012-13 academic year, the four core sports were football, basketball, soccer, and softball. In 2013-14, volleyball replaced softball as a core sport, with softball becoming a supplemental sport. For the current academic year (2013-14), the supplemental sports were futsal, rugby (with both fall and spring seasons), Run-4-Fun, softball, tennis, and track & field. Each of the core sports operates for an eight-week season, with a maximum of forty days per sport available. A student who participates in all four core sports has the potential to participate in 160 days total. The supplemental sports vary in the length of their seasons.

In this report, *casual* participants are those who participate for less than 15 days in a school year. In some analyses, we make a distinction between *medium* and *high* participation as subcategories of *regular* participation. We define *high* participation as at least 55 days of attendance per year, which necessarily must include participation in more than one sport. *Medium* participation means at least 15 days but less than 55 days per year.

Regular Levels of Sports Participation

Overall, during the 2013-14 school year, 127 schools reported student participation in any LA84 Foundation sports, of which 100 schools reported participation in LA84 Foundation core sports. There were 9,303 students with *regular* participation (at least 15 days of participation) in LA84 Foundation core sports and 3,138 students with casual and/or supplemental-sport only participation. Figure 1 shows how the number of students participating in LA84 Foundation sports compares with students in the same schools who did not participate in LA84 Foundation sports. In the same schools, there were 27,099 who participated in other BTB after-school programs and 73,030 who did not participate in any BTB after-school program component.

Figure 1. LA84 Foundation Sports Participation at Participating Schools

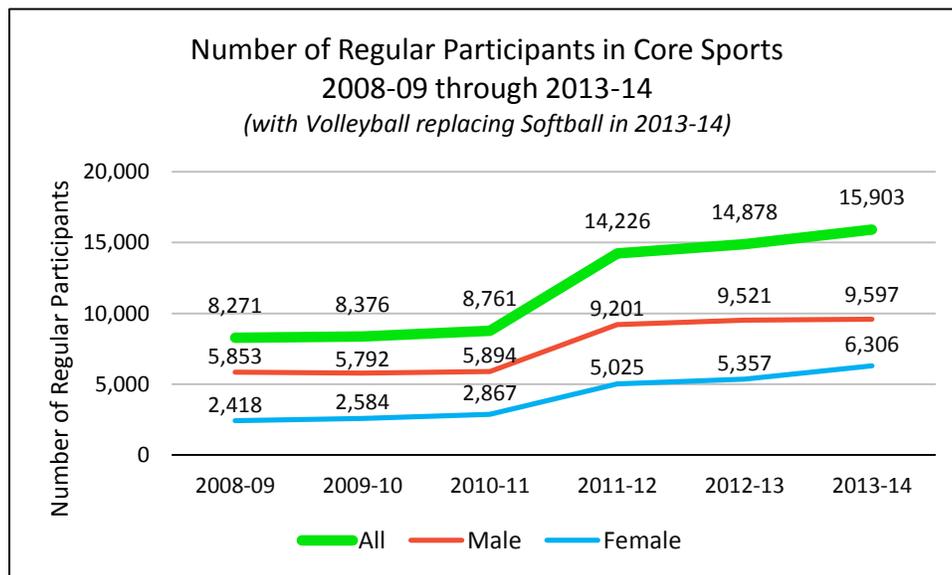


Note:

1. Individual students participating in multiple sports are counted only once in this graph.
2. Regular participation is defined as 15 or more days of attendance during the school year. Casual participation is defined as fewer than 15 days per year. Supplemental sports are LA84 Foundation sports other than the four core sports.

Figure 2 shows the combined number of regular participants in core sports for the school years from 2008-09 through 2013-14. This graph includes volleyball in place of softball as a core sport in 2013-14. Since individual students may participate in more than one sport, these numbers may count an individual student up to four times per year.

Figure 2. Longitudinal Growth in Participation in Core Sports from 2008-2014



Note:

1. Core sports are Football, Basketball, and Soccer in all years, Softball through 2012-13, and Volleyball replacing Softball for 2013-14.
2. Individual students participating in multiple sports are counted multiple times in this graph.
3. Regular participation is defined as 15 or more days of attendance per year for each sport counted.

This figure shows that there was a substantial increase in participants in all four core sports in the 2011-12 school year, with the number of participants continuing to climb (although at a slower rate) in subsequent years as demonstrated by the green line. LA84 Foundation participants showed an overall gain of about 92% in six years. The blue and red lines, representing females and males respectively, also show growth in participation since 2008-09. The total number of male participants remains higher than the total number of female participants. However, female participation has climbed by about 161% in five years, while male participation has climbed by about 64% in the same period. Overall, these trends suggest that participation in LA84 Foundation sports continues to grow across academic years for male and female participants.

High, Medium, & Casual-Level Sports Participation

Additionally, the number of *high* attenders in LA84 Foundation sports has risen (at least 55 days of attendance per year), while *low* (or casual) participation has dropped over time (those participating 15 days or less). In Table 1, student participation is categorized as high, medium, and casual. Since 2008-09, high participation has climbed 233% and medium participation has climbed 10%, while casual and supplemental-only participation has declined

14%.¹ This table also shows that the number of students in LA84 Foundation sports has climbed even while student populations at LAUSD middle schools declined. As a result, LA84 Foundation sports participants represented more than 10% of all students in their middle schools in 2011-12 for the first time, and about 12% of all students in their schools during 2013-14.

Table 1. High, Medium, and Casual Participation versus Non-Participation from 2008-2014

Level of LA84 Participation	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	5-year change
High Participation Students (55+ days in core sports)	1,192	1,432	1,499	2,688	3,299	3,975	233%
Medium Participation Students (15-54 days in core sports)	4,414	3,223	3,450	5,437	4,200	4,852	10%
Total Regular LA84 Participants	5,606	4,655	4,949	8,125	7,499	8,827	57%
Casual and Supplemental-Only Students (0-14 days in core sports)	4,195	4,808	5,849	4,027	3,803	3,614	-14%
Total Students Participating in LA84	9,801	9,463	10,798	12,152	11,302	12,441	27%
Non-LA84 After-school Program Students	41,166	38,003	32,795	29,375	29,161	27,099	-34%
Not After-school Program Students	91,033	88,463	81,100	78,123	74,712	73,030	-20%
Total Non-LA84 Students	132,199	126,466	113,895	107,498	103,873	100,129	-24%
Regular Participants as % of LA84 Students	57%	49%	46%	67%	66%	71%	24%
LA84 Participants as % of Same-school Students	7%	7%	9%	11%	11%	12%	68%

Note:

1. Each student is counted only once per year, regardless of number of sports.
2. Data for supplemental sports are only included for 2012-13 and 2013-14.
3. Only students in schools with LA84 Foundation programs are counted in non-LA84 Foundation sports participants' figures and as the base of the percent.

Regular Participation by Core Sport

Sports participation trends were also examined by core sport across time. Figure 3 shows the number of regular participants in each of the four core sports for a six-year period. For statistical continuity, softball is included for 2013-14, although it was no longer a core sport. Basketball and soccer show rapid growth across the years including in 2013-14, while football declined in 2013-14 after rapid growth in earlier years. Softball participation fell off by two-thirds when it was dropped as a core sport, although the following figure shows that volleyball participation (the core sport replacing softball) increased proportionately.

¹ This figure understates the decline, since data for supplemental sports were not analyzed for years prior to 2012-2013. Thus, participation statistics for earlier years do not include supplemental-only students, while data for the last two years include those students.

Figure 3. Longitudinal Participation Trends by Sport (Core Only) for 2008-2014

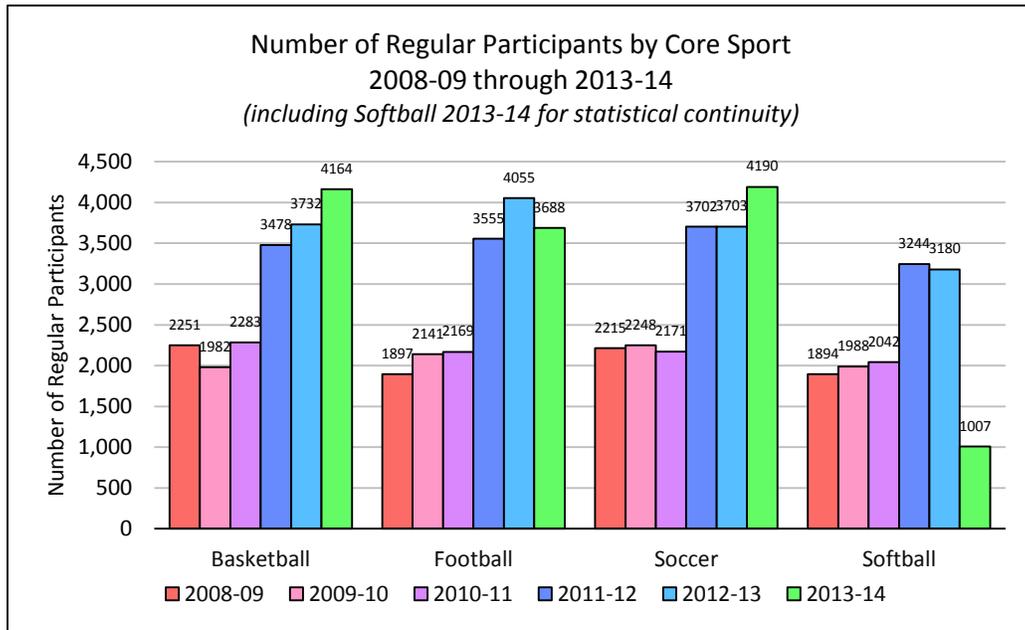
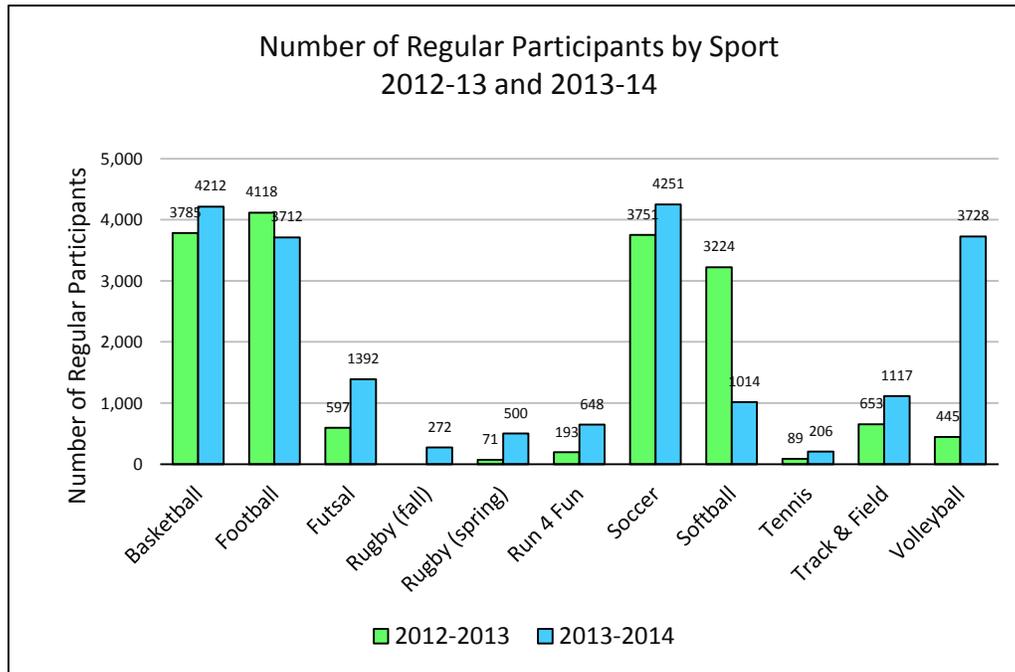


Figure 4 shows regular participation for eleven sports, including the four core sports and seven supplemental sports for school years 2012-13 and 2013-14. This figure shows that the increase in volleyball participation in 2013-14 was greater than the corresponding drop in softball participation when volleyball became a core sport. This figure also shows proportionately high rates of growth in participation in the supplemental sports, some more than doubling in size in one year. These increasing participation trends for supplemental sports, including rugby and futsal, may be attributed to the increased availability of supplemental sports at program sites, as the number of sites offering some of the supplemental sports doubled in the past two years.

Figure 4. Regular Participation by Sport (Including Supplemental) for 2012-2014



Nearly 44% of regular LA84 Foundation sports participants were involved in more than one core sport per year, as shown in Table 2. This table shows that multiple-sport involvement, as a percentage of regular participants, has increased over time, from about 29% to about 44% in five years.

Table 2. Participation in Multiple Sports from 2008-2014

Combinations of Core Sports	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
One Core Sport	3,990	2,734	2,956	4,745	4,517	4,978
Two Core Sports	1,043	901	974	1,734	1,876	2,002
Three Core Sports	436	527	511	1,003	985	994
Four Core Sports	137	493	508	643	121	853
Total Regular LA84 Participants	5,606	4,655	4,949	8,125	7,499	8,827
Casual/supplemental LA84 Participation Only	4,195	4,808	5,849	4,027	3,803	3,614
Total LA84 Participants	9,801	9,463	10,798	12,152	11,302	12,441

Note: Each student is counted only once per year, regardless of number of sports.

The above analyses indicate a high rate of growth for LA84 Foundation sports programs, including growth in the number of students, the average number of sports each student is involved in, and the average number of days per year each student attends. Because LA84 Foundation sports participation has climbed rapidly while the student population in the same schools has declined, the percentage of students involved in LA84 Foundation sports programs has continued to rise dramatically.

LA84 Foundation Sports by Student Demographics

To supplement overall trends in sports participation, this section focuses on the demographic composition of the LA84 Foundation sports participant population during the 2013-14 school year, by sport and combination of sports.

Combinations of Sports by Gender & Ethnicity

The analysis of sports combinations provides a useful picture of which sports and which combinations of sports are most popular among student participants. Table 3 shows all possible combinations of the four core sports, with counts of students participating at least fifteen days in each sport. These counts are disaggregated by student gender and ethnicity. The disaggregated numbers for non-LA84 Foundation sports students are also shown at the bottom of the table for comparison.

Table 3. Demographics of Participation in Combinations of LA84 Foundation Core Sports

Combination of Sports 2013-2014	N	Male	Female	Hispanic	Black	Asian	White	Other Ethnicity
Basketball only	1,195	62%	38%	62%	22%	4%	7%	6%
Football only	1,056	68%	32%	74%	16%	1%	5%	4%
Soccer only	1,799	62%	38%	88%	6%	2%	4%	1%
Volleyball only	928	35%	65%	67%	20%	2%	7%	4%
Subtotal for One Core Sport	4,978	58%	42%	75%	14%	2%	5%	3%
Basketball Football	663	70%	30%	52%	34%	2%	7%	4%
Basketball Soccer	167	60%	40%	71%	16%	2%	8%	2%
Basketball Volleyball	332	53%	47%	59%	26%	4%	5%	6%
Football Soccer	158	66%	34%	91%	4%	1%	3%	1%
Football Volleyball	135	51%	49%	74%	19%	1%	1%	4%
Volleyball Soccer	547	45%	55%	75%	13%	2%	5%	4%
Subtotal for Two Core Sports	2,002	58%	42%	66%	22%	2%	6%	4%
Football Basketball Soccer	168	68%	32%	71%	21%	1%	5%	2%
Football Basketball Volleyball	358	66%	34%	50%	34%	3%	8%	4%
Football Volleyball Soccer	150	69%	31%	75%	11%	2%	8%	4%
Basketball Volleyball Soccer	318	56%	44%	67%	16%	2%	7%	9%
Subtotal for Three Core Sports	994	64%	36%	63%	23%	2%	7%	5%
Four Core Sports: Football Basketball Volleyball Soccer	853	62%	38%	70%	18%	2%	5%	5%
Total Regular LA84 Participants	8,827	59%	41%	71%	17%	2%	6%	4%
Casual/supplemental LA84 Participation Only	3,614	60%	40%	79%	12%	2%	4%	3%
Total LA84 Participants	12,441	60%	40%	73%	16%	2%	5%	4%
Non-LA84 After-school Program Students	27,099	46%	54%	79%	10%	3%	5%	3%
Not After-school Program Students	73,030	52%	48%	72%	7%	5%	13%	3%

Note: Each student is counted only once per year in the numbers shown here, regardless of number of sports.

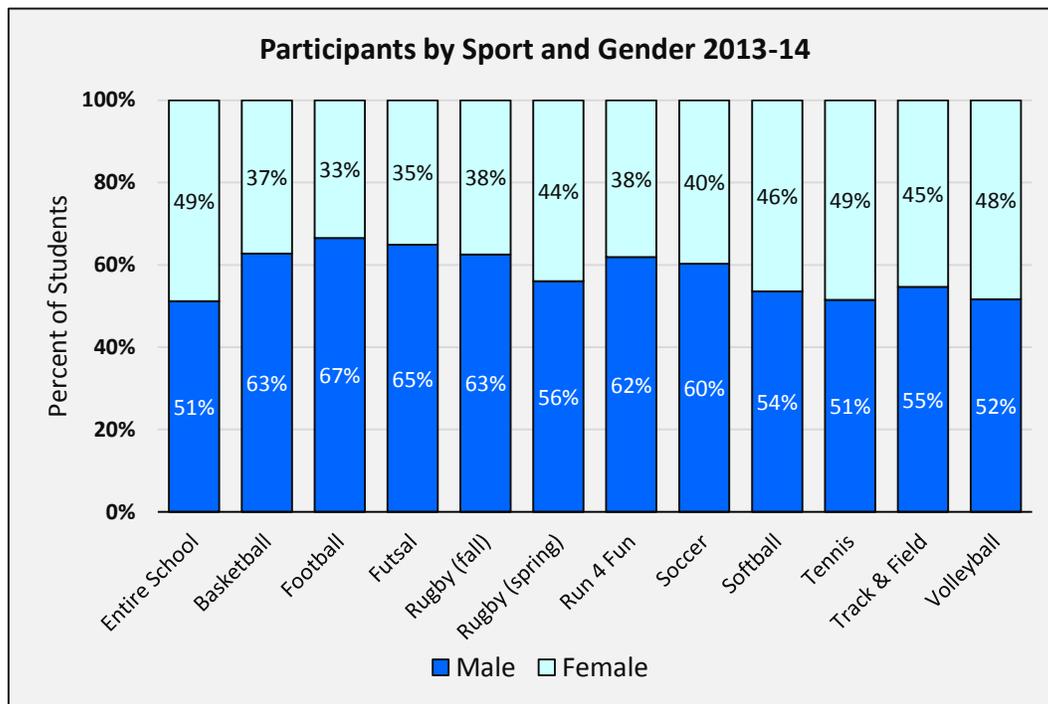
At a regular level of participation, almost as many students are involved in multiple sports as in single sports, and the proportion of students in multiple sport combinations has grown in recent years. The most popular combinations of sports are those involving football and basketball, with those involving volleyball and soccer coming close behind. The football and

basketball combinations are proportionately very popular among students who are Black (34% of participants versus 7% of non-after-school program students in the same schools who are Black). The volleyball and soccer combinations, and volleyball only, are the only patterns with higher female participation than male participation. Soccer is the most popular sport for one-sport participants, with a high proportion of Hispanic students (88%).

Sport by Gender

Previous reports have noted that more male students than female students participate in LA84 Foundation sports programs. This continues to be true in 2013-14, as shown in Figure 5. Female participation is lower than male participation in all sports. Tennis and volleyball are the sports that come closest to matching the school population in the proportion of female students. Football has the highest proportion of male students, but it is noteworthy that a third of football participants are female.

Figure 5. Sports Participation By Gender for 2013-14

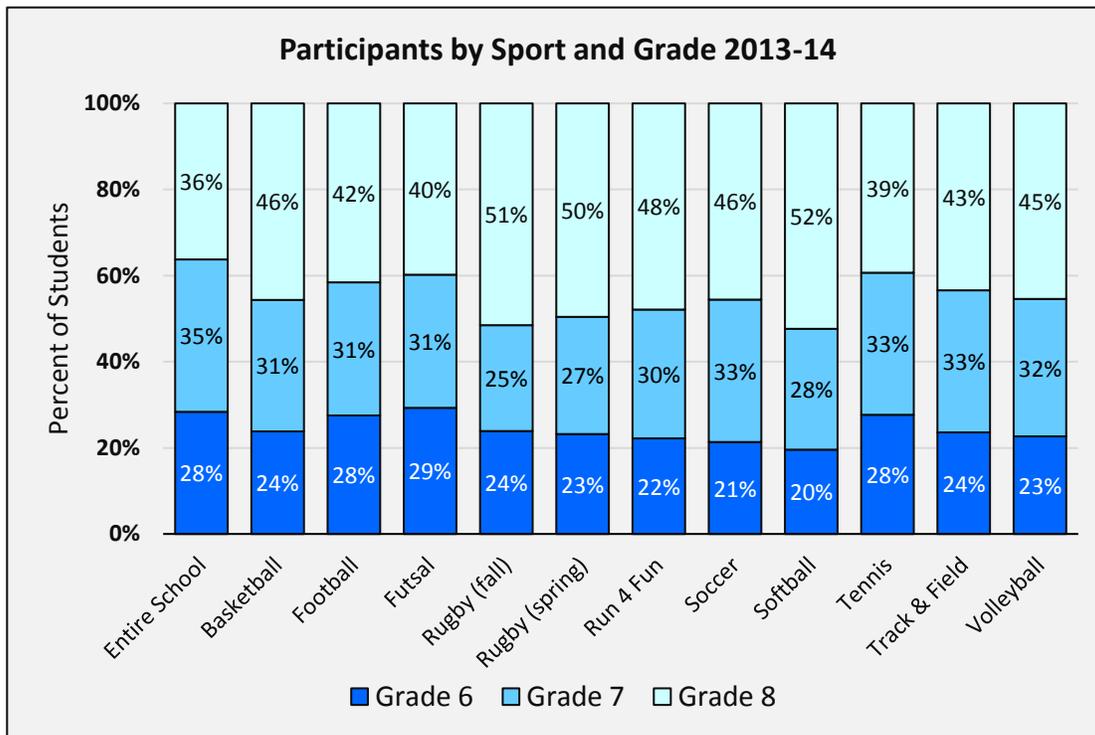


Sport by Grade Level

Figure 6 shows that the proportion of students in LA84 Foundation sports increases with grade level, which is consistent with an increase in the size of each cohort as it progresses through the grades. This may suggest that satisfied students are more likely to recruit their peers, thus students may be more likely to join after seeing other students participate in lower grades. This trend runs counter to participation findings in after-school programs in general, in

which student participation declines in higher grades as students gain an increasing degree of freedom and availability of alternative activities.

Figure 6. Participants By Sport By Grade Level for 2013-14

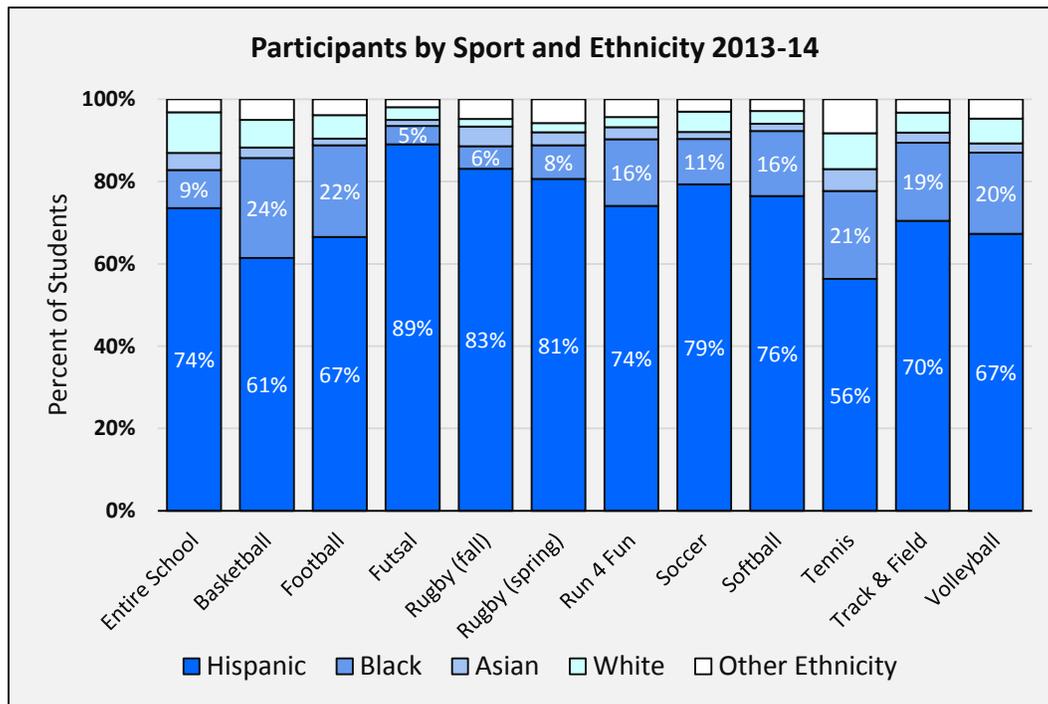


Sport by Ethnicity

These data show that LA84 Foundation sports programs in general reflect the composition of their schools in that the vast majority of participants are Hispanic. Thus, all sports have greater percentages of Hispanic students than other ethnicities. However, as compared to their school populations, Black students are represented in LA84 Foundation sports at double the percentage (18% vs. 9%) of Black students not in LA84 Foundation sports.

Figure 7 shows the distribution of regular participants in each sport by ethnicity. This shows that futsal has the highest proportion of Hispanic students, while tennis has the lowest. Among Black students, basketball and football are the most popular sports with over 20% black participants. Of all the sports, tennis has the highest participation of Asian and White students.

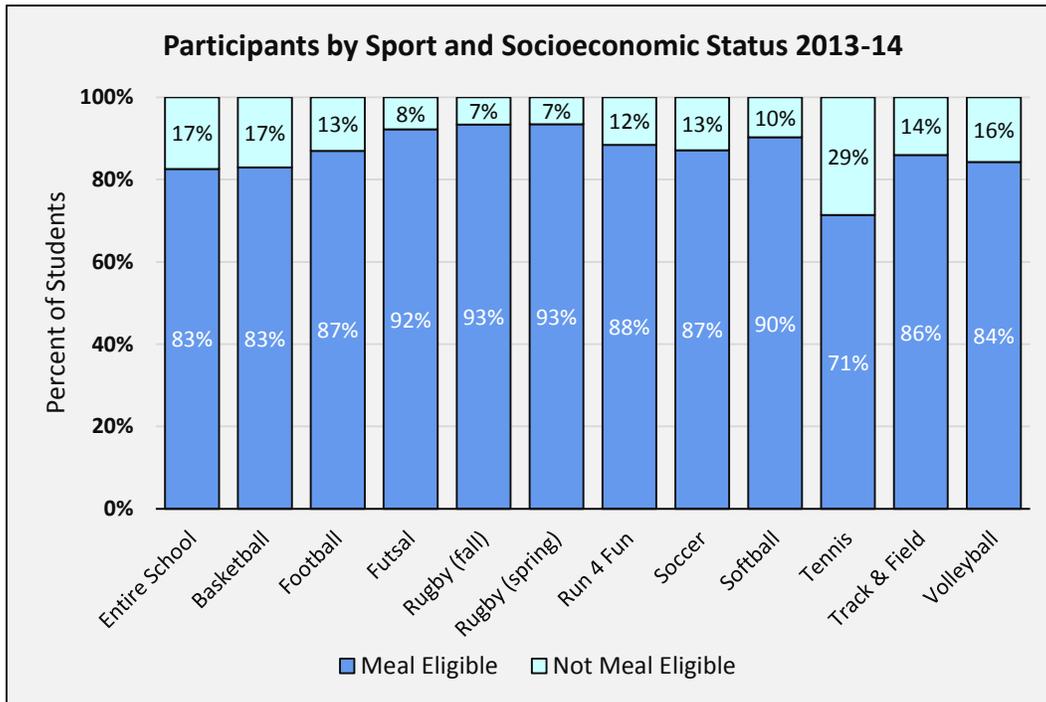
Figure 7. Sports Participants By Ethnicity for 2013-14



Sport by Socioeconomic Status

Figure 8 shows the distribution of students by socioeconomic status (SES), with poverty measured by eligibility for federal Free or Reduced-Price Meal programs. This figure shows that LA84 Foundation sports students, like their schools, have high rates of poverty. Among sports, tennis is least popular with low-SES students, while Rugby is the most popular.

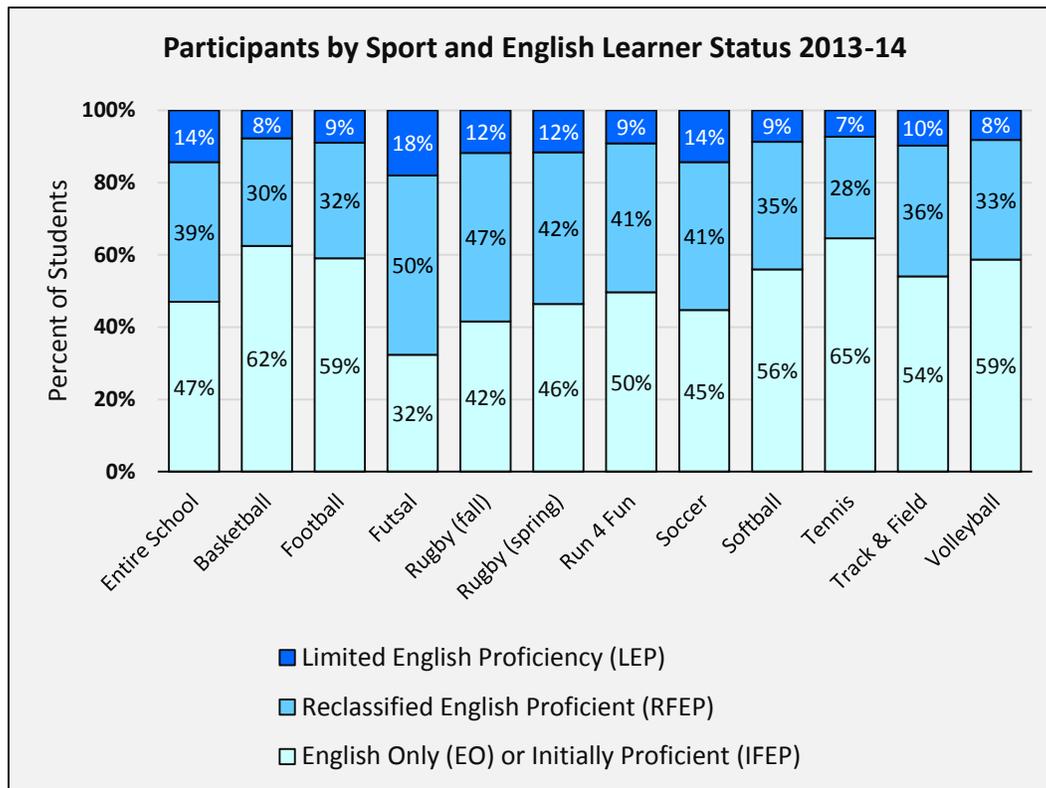
Figure 8. Sports Participants By Socioeconomic Status for 2013-14



Sport by English Learner Status

Figure 9 shows the distribution of students by English Learner (EL) status. Since Spanish is the most prevalent non-English language and Hispanic students the most prevalent ethnicity, it is unsurprising that the patterns of sports participation by EL status are similar to the patterns shown by Hispanic students. Futsal shows the highest representation of Limited English Proficient students (LEP), while basketball, football, softball, tennis, and volleyball show low representation of LEP students.

Figure 9. Sports Participants By English Learner Status for 2013-14



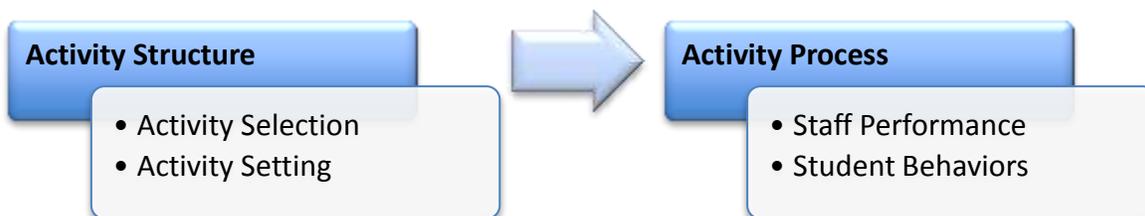
Summary of Attendance Findings & Trends

Participation in LA-84 Foundation sports is increasing overall, including growth in the number of students, the average number of sports each student is involved in, and the average number of days per year each student attends. Additionally, although the student population in the program-affiliated schools has declined, the percentage of students involved in LA84 Foundation sports has continued to rise dramatically. These increasing participation trends are true for both genders. In 2013-14, LA84 Foundation sports program continued to attract students of diverse ethnicities, socioeconomic situations, and grade levels, as well as English language learners, across the core and supplemental sports offered.

Section 2. Program Quality Observations

The second component of the CEC’s evaluation efforts represent the observational findings of the LA84 Foundation sports activities during the fall and spring semesters of 2013-14 at 22 middle schools served by LAUSD Beyond the Bell (BTB) providers.

A structured observation protocol developed by Research Support Services was used to rate each activity session across four major components: activity selection, activity setting, staff performance, and student behavior. For each activity session, observers rated these components on a 4-point scale (1 = unsatisfactory, 2 = just adequate, 3 = satisfactory, 4 = superior), as well as writing qualitative comments about features of the environment and any additional notes of interest. Session observations lasted 13.7 minutes, on average (range 7-30 minutes).



The LA84 Foundation sports observational tool examined four components of the activity participation model. Activity structure is the first component of BTB’s LA84 Foundation sports activities. In this domain, selecting the appropriate activity, and having an adequate activity setting (i.e., space and equipment) are essential first steps toward implementing high quality sports activities. These structural components are typically decided prior to the activity session itself and as such, planning and preparation are crucial. It is important to note that the activity structure may be somewhat limited by barriers within the school site and the provider infrastructure. When these structural components of an activity are in place, BTB program staff can more effectively focus on the activity process. Activity process represents the staff performance and student behaviors that make up the interactions taking place when participating in sports activities. High quality activity processes involve positive coaching techniques, student engagement, and positive staff-student and student peer interactions throughout activity participation. In the summary below, the overall ratings are discussed, followed by findings organized by these four components of the activity participation model. For each component, a summary of the quantitative ratings (observer’s numerical ratings) is provided, as well as a thematic discussion of the qualitative notes provided by observers.

Structured Observational Quantitative Findings

The final sample of sports activities observed included 108 sport sessions. As Figure 10 demonstrates, the largest category of sports sessions observed was soccer (43.5%), followed by softball (25.0%) and basketball (17.6%).

Figure 10. Frequency of Sports Activities Observed (N = 108)

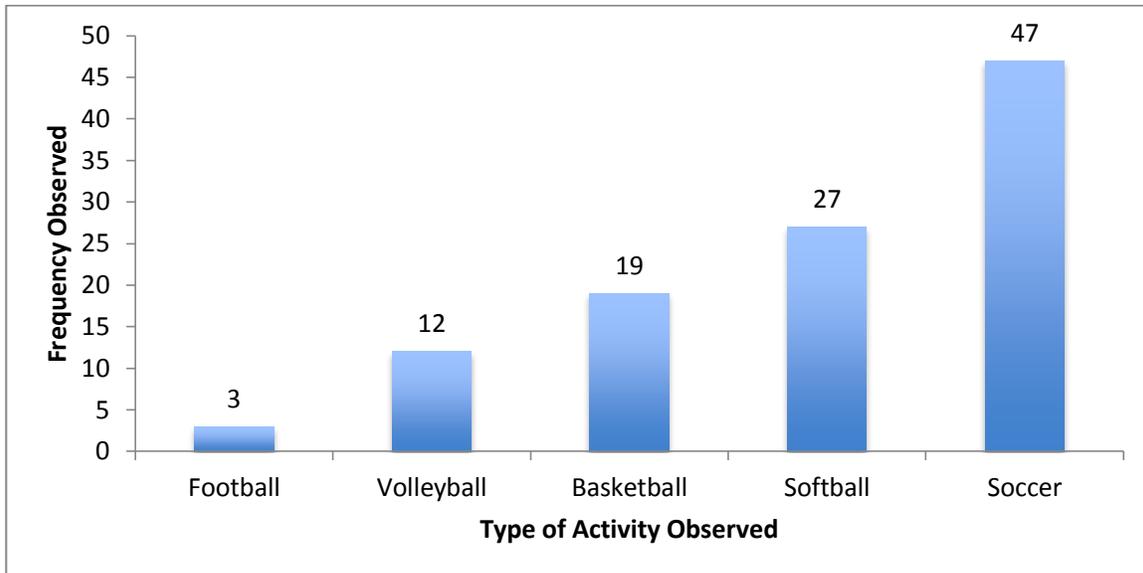


Figure 11. Average Ratings Across All Observed Sports Sessions (N = 108)

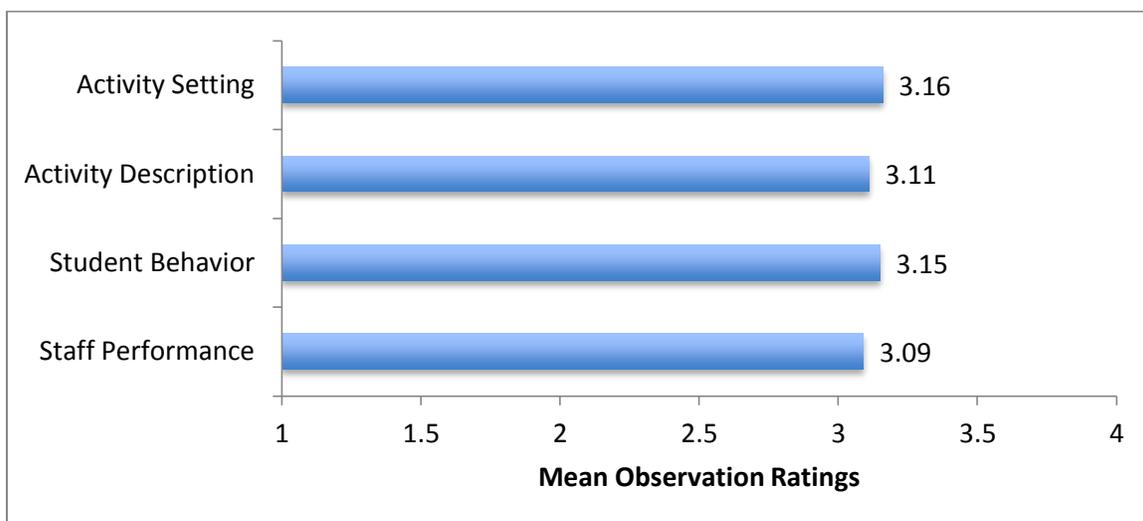


Figure 11 summarizes the overall ratings for the entire sample of observations across ratings of activity selection, activity setting, staff performance, and student behavior. Overall,

these cumulative ratings suggest that all environmental features were given “satisfactory” ratings, on average, across observed sports sessions. These high ratings suggest that sports sessions observed demonstrated fairly high quality as a whole.

Quality Ratings by Sport

To explicate the quality ratings for LA84 Foundation sports activities, analyses were conducted to examine differences in observer ratings by the type of sport activity observed. Analyses demonstrated that no significant differences existed for the activity selection, activity setting, staff performance, and student behavior by sport. This finding suggests that the quality of sports sessions was similar across the different sports implemented.

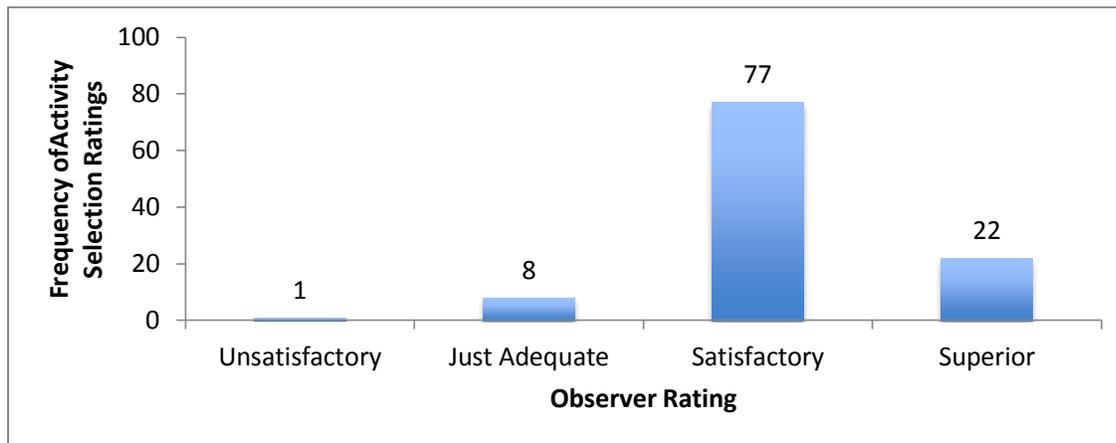
Structured Observation Qualitative Findings

To understand the most salient features of low and high quality sports activities and identify program best practices, thematic qualitative analyses were conducted on the written observer notes. Qualitative observer notes are thematically analyzed to provide further insight into the low-rated sports activities (*rated unsatisfactory or just adequate*) and high-rated activities (*rated superior*). The most common written notes justifying these high and low ratings are discussed for each component. It should be noted that the number of sessions coded to represent a particular theme do not necessarily add up to the total number of sessions rated high or low because many sessions were given more than one thematic code.

Activity Selection

In the activity selection category, 92% of activities were rated “satisfactory” or better and only one activity received an unsatisfactory rating (refer to Figure 12).

Figure 12. Frequency of Observer Ratings for Activity Selection (N = 108)



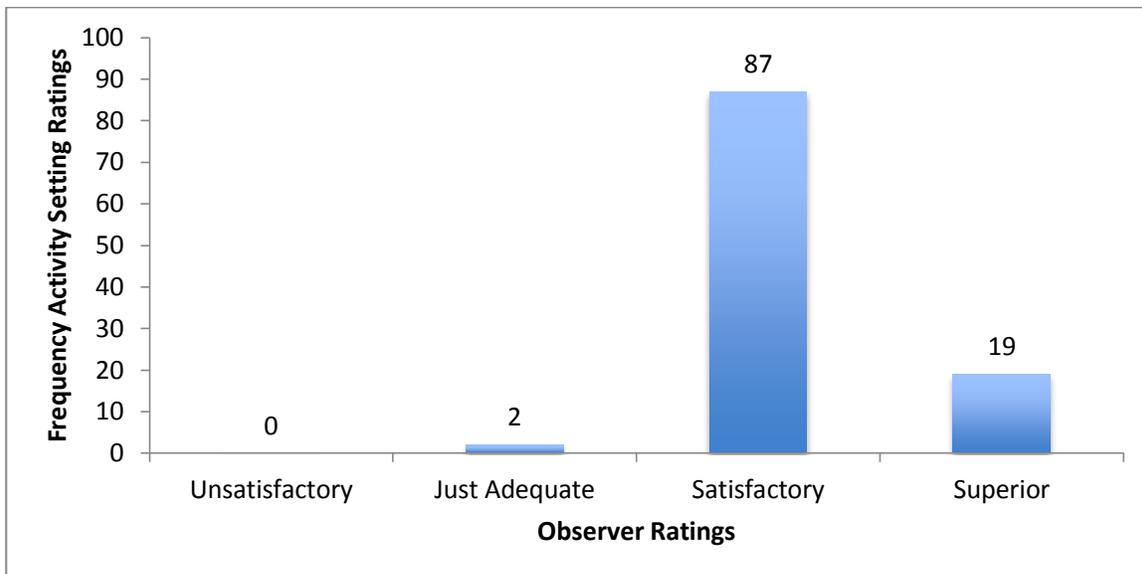
Highly Rated Activity Selection (rated superior). The highest rated activities embodied the goals of the LA84 Foundation through providing opportunities for teaching, learning, and competition (TLC) ($n = 16$). These activities embodied the LA84 Foundation mission through supporting skill development or the application of learned skills in competition. Other highly rated activities were characterized by positive leadership behaviors from staff members (i.e., modeling, good structure established, feedback) ($n = 5$) and engaged student participants through balancing fun activities with challenge ($n = 8$). One observer noted the strong structure and organization established in one exemplary soccer session, “Students worked in three different sub-groups. One focused on dribbling and capturing the ball, the other focused on blocking goals, and another focused on kicking goals. From a distance, it looked like a well-oiled machine, with everyone on task and concentrating on their task.” Another observer noted that one activity exemplified student engagement and positive peer interactions, “This was the best tryout session I have ever seen because everyone was having fun and acting totally positively towards one another. Everyone was taking the tryout seriously but enjoying themselves and not putting each other down regardless of their skill level.” The appropriate use of equipment provided by the LA84 Foundation was also characteristic of high quality activities ($n = 2$).

Poorly Rated Activity Selection (rated unsatisfactory or just adequate). The most common feature of poorly rated activities was that the activity was unstructured and little leadership was observed ($n = 6$). In many of these cases, the lack of structure and leadership resulted in activities that were either not conducive to skill development, or did not include intentional skill building components ($n = 2$). Additionally, some activity sessions struggled due to a lack of appropriate equipment or limited use of available equipment ($n = 4$). One observer noted, “One could not distinguish between the teams as they wore no uniforms or bibs. There was also no scoreboard or LA84 Foundation banner. Bats and mitts issued by the LA84 Foundation were not used.”

Activity Setting

The activity settings received very high ratings with 98% of sessions receiving ratings of satisfactory or better, suggesting that sports activities are taking place in high-quality environments across providers. Indeed, no activities received “unsatisfactory” ratings for the setting. See Figure 13 for a complete summary of activity setting ratings.

Figure 13. Frequency of Observer Ratings for Activity Setting (N = 108)



Highly Rated Activity Setting (rated superior). For the majority of highly rated activity settings, the space demonstrated a good match to the activity and was conducive to high-quality implementation ($n = 21$). Additionally, the space included structures and permanent equipment that was necessary for the activity (i.e., basketball hoops). Another important component of highly rated settings was that the environment was clean and well maintained ($n = 8$).

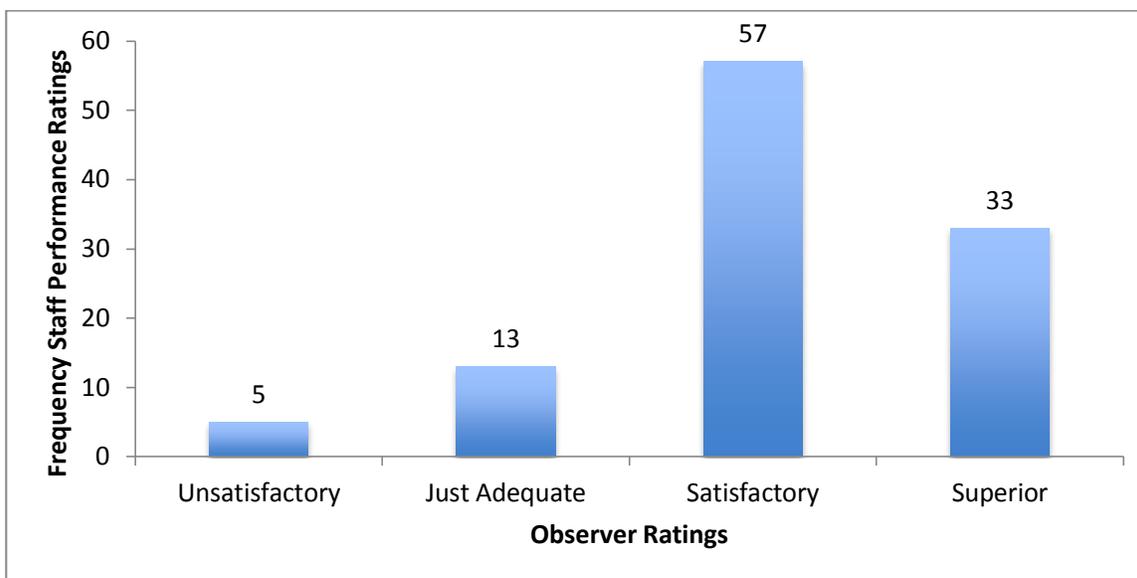
Poorly Rated Activity Setting (rated unsatisfactory or just adequate). All of the qualitative notes for low-rated activity settings noted that there was a lack of necessary equipment or necessary space ($n = 2$). Low ratings were due to small, logistical issues concerning the lack of some non-essential equipment (i.e., scoreboards, banners).

Staff Performance

As one component of the activity process, high quality staff performance is essential to promoting positive youth development. Research suggests that positive coaching techniques include the following staff behaviors: providing technical instruction, emphasizing skill development, tailoring the activity to participants’ skill levels, delivering appropriate and

constructive feedback, emphasizing teamwork, and nurturing positive relationships with students (Fraser-Thomas & Cote, 2006; Holt et al., 2006). Observational findings suggest that approximately 83% of sessions had staff performance that was rated satisfactory or better, however 18 sessions received lower ratings from observers (refer to Figure 14).

Figure 14. Frequency of Observer Ratings for Staff Performance (N = 108)



Highly Rated Staff Performance (rated superior). Staff members implemented many positive coaching techniques to create high-quality environments for student participants. The most common positive staff behavior was to provide high levels of encouragement and feedback to students ($n = 16$) and create activities that emphasized learning and skill building ($n = 10$). The following notes were written by observers to demonstrate the importance of encouragement and feedback for participant skill building.

- *“The coach was experienced. He provided encouragement and positive reinforcement to students, but also corrected improper postures and techniques. He did the correction in a supportive tone without any yelling.” (Middle school volleyball activity)*
- *“The coaches know the students names and provides encouragement and instruction. If a play is not optimal, they suggest improvements for the next time.” (Middle school softball activity)*
- *“He watches the moves made by the players and coaches students individually, identifying ways to improve.” (Middle school basketball activity)*

This learning and skill building would not be possible without staff members possessing the requisite knowledge about the sport (i.e., rules, techniques) ($n = 11$). The following observer

notes for highly rated sessions illustrate the importance of knowledge about sports rules, procedures, and techniques to support student development.

- *“The coach is a former professional player. He is fully involved with the students by calling plays and watching the work of students.” (Middle school soccer activity)*
- *“The coach was serious and clearly understood the rules of playing soccer, as well as the necessary coaching strategies. He made playing enjoyable although he was preparing them for a weekend tournament.” (Middle school soccer activity)*
- *“The leader/coach was knowledgeable about softball. He provided individual batting instruction to some students on batter stance and swing using softball terminology.” (Middle school softball activity)*

Additionally, positive coaching was observed via positive interactions between staff and students ($n = 8$). Staff members were described as “attentive”, “flexible”, “supportive”, and “respectful” in their interactions with students. Through these interactions, staff members “created a very positive feeling” and “set a positive tone” in observed sports sessions.

In a similar vein, staff members used high-levels of organization in their sessions ($n = 9$) and strong behavioral management ($n = 11$). Across sessions, observers noted, “clear routine, procedures and rules were evident” in multiple sessions. Organization allowed for participation of “students at various levels” as illustrated by the observer notes here.

- *“Program leader established clear expectations and boundaries, and provided informative feedback, explaining what and why the activity would proceed as he described.” (Middle school soccer activity)*
- *“He was firm, positive, and kept the students active. He was assertive and very skilled in disciplining his students. He firmly asked the students to quickly move through the cones and instructed them on safety issues.” (Middle school football activity)*
- *“Site coordinator and Program Leader were organized, followed a well-developed routine. They were attentive to students and rules of the game, which they facilitated in such a way to reinforce students knowledge and skills required for the game.” (Middle school basketball activity)*

Lastly, highly rated staff performance also included sessions in which staff members displayed enthusiasm and modeled a positive attitude for student participants ($n = 7$). In one particular session, the observer noted that the “...coach had passion for soccer and tried to instill this in his students. He was right in the middle of the action and conducted his skill and drill sessions while running along side the students. He yelled encouragement all along the way. He reminded them about team work, not hogging the ball, and being aware and focusing on their surroundings.”

Poorly Rated Staff Performance (rated unsatisfactory or just adequate). The most pervasive concern about staff behaviors was a lack of appropriate leadership. In some cases,

staff members did not display leadership behaviors and provided no direction to structure the activity ($n = 14$). Similarly, in many sessions, staff was observed providing no feedback, or encouragement to student participants ($n = 9$). These sessions did not promote skill development because no feedback or instruction was given to scaffold learning, and in these sessions, observers noted a lack of student engagement. Examples of these concerning staff behaviors are provided below.

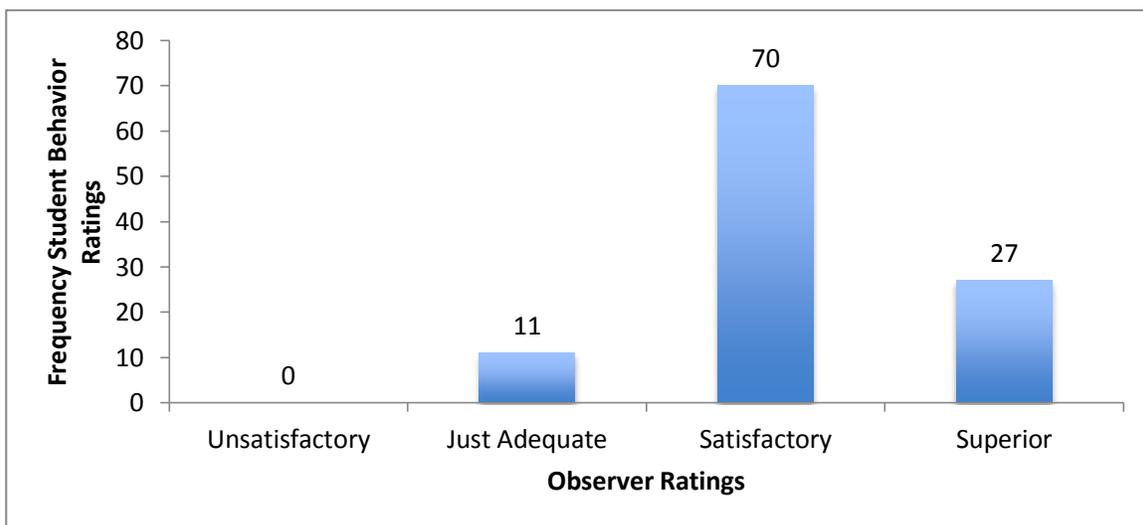
- *“The coach was not observed talking to the students during the game. No skill building took place.” (Middle school soccer activity)*
- *“No coaching directions or skill building was evident during the activity. The leader used a whistle to stop and start student activity. This leader did not engage students wandering in or out.” (Middle school soccer activity)*
- *“Two staff. No efforts to teach, assist, or inspire. Spent much of the time talking to each other and to other staff who passed through including the coordinator.” (Middle school basketball activity)*

As these notes illustrate, these sports sessions were missed opportunities for student growth, due to a lack of initiative, leadership, and effort by program staff. Staff performance is essential to the success of sports activity sessions.

Student Behavior

Overall, approximately 90% of activity sessions received high ratings for student behavior and no sessions received unsatisfactory ratings. Refer to Figure 15 for a complete summary of observer ratings for student behavior.

Figure 15. Frequency of Observer Ratings for Student Behavior (N = 108)



Highly Rated Student Behaviors (rated superior). A high frequency of sessions exhibited positive and productive student behaviors. In a large number of highly rated sessions, students displayed positive emotions, such as interest and enthusiasm, and had high levels of engagement in the sports activities ($n = 22$). Students were also observed engaging in positive behaviors towards their peers, including teamwork, cooperation, supportive engagement and strong sportsmanship ($n = 16$). In addition to positive peer interactions, students were observed interacting positively with program staff by showing respect and responding to staff feedback in a positive manner ($n = 14$). The exemplary sessions noted below demonstrate the potential for student engagement and positive behavior.

- *“All students were wholly engaged, focused, interested, and motivated. They were cooperative, worked well with each other, listened to and followed directions provided by the program leaders.” (Middle school soccer activity)*
- *“The students were engaged and maintained interest in the soccer game. They were competitive and worked well with their teammates. Students listened to directions and followed directions. They were respectful and cheered each other on. They called out to each as they fielded the soccer ball.” (Middle school soccer activity)*
- *“The students played hard and were very immersed in the game. They played fairly, listened to the coaches and had lots of fun. It was a productive, active time for all involved.” (Middle school soccer activity)*
- *“The students were orderly, respectful, well-behaved and listened attentively to directions and instructions. Students demonstrated interest in the activity and encouraged teammates and peers. Students assisted with gathering and storing equipment.” (Middle school soccer activity)*

Poorly Rated Student Behaviors (rated unsatisfactory or just adequate). Eleven sessions overall received low ratings for student behaviors (10% of total sessions). The vast majority of student behaviors that received a low rating were characterized by disengagement, lack of enthusiasm, and off-task behaviors ($n = 9$). A small number of student groups were also observed acting disrespectfully towards program staff, or non-responsive to staff requests ($n = 3$). Observer notes about poor student performance illustrate some of these issues.

- *“Most students did not seem interested in the activity. The ball was kicked around between the same four students during the game. Other students stood around talking to each other. Two students sat on the benches and were working on what appeared to be homework.” (Middle school soccer activity)*
- *“Students that were up to bat did not stay behind the back stop and could have been hit by stray balls. The catcher wore a face mask, but not a chest protector. Some females also sat between the home and first bases eating, talking, and using their cell phones.” (Middle school softball activity)*

- *“The students were just standing around at the beginning. The girls were just standing around socializing and never got totally engaged. Most of the boys participated but there seemed to be a lack of commitment on this day.” (Middle school softball activity)*

Many of these behaviors seem to be the result of poor session management, and lack of supervision, interaction or engagement from program staff. Qualitatively, sessions where poor staff performance was observed also seemed to be sessions where student behaviors were more negative. Indeed, there was a strong, positive correlation between the staff performance and student behavior quantitative ratings ($r = .61, p < .001$). This suggests that there is a relationship between staff performance and student behaviors such that when staff performance was rated highly, these sessions also had high ratings for student behaviors (and vice versa for poor ratings). This relationship demonstrates the strongly interrelated nature of staff behaviors and student engagement.

Summary of Program Quality Findings

Many activity sessions exemplified the best practices necessary for promoting positive youth development. These highly rated activity sessions provide some insight into the ingredients for a successful sports activity. These insights are consistent with the body of research and evaluation findings about promoting positive youth development in sports activities.

In terms of the activity structure, high-quality sports activity sessions possessed the following characteristics.

- Activities were selected based on their potential for skill-development and embodied the LA84 Foundation mission of teaching, learning, and competition (TLC).
- Activities were selected to provide participants with enjoying activities coupled with challenge to create high levels of engagement and motivation.
- The activity setting was well matched to the activity, providing the necessary space for effective activity implementation.
- The activity setting was clean and well maintained.
- The necessary equipment was available and the equipment was utilized in an appropriate manner.

For the activity process, high-quality sports activity sessions possessed the following characteristics.

- Staff members provided appropriate feedback coupled with encouragement to scaffold learning and skill development among youth participants.
- Staff members possessed high levels of knowledge about the sport being played that was harnessed to demonstrate skills to participants and teach sports rules and procedures.
- Staff members developed strong session organization and structure to facilitate learning, and used behavioral management techniques to manage the participants through the session structure.
- Staff engaged in positive interactions with all student participants and modeled positive behaviors and positive emotions (i.e., enthusiasm, excitement).
- Students were engaged in the activity, showing both interest and concentration.
- Students interacted positively with peers throughout the activity, including cooperation, encouragement, and teamwork.
- Students were respectful to staff members, responded appropriately to staff requests and directions, and understood the importance of participating in a safe manner.

Limitations of Observational Data

When analyzing and reviewing observational data, some limitations were discovered. One concern with the observational data is that there was little variability across the observational ratings, as evidenced by the high frequency of “satisfactory” (*three*) ratings across categories. It is unlikely that sports activities were highly similar across providers and sports, and thus it is plausible that there are some shortcomings of the observational data collection system. Perhaps the broad categories observed do not pinpoint the important processes and environmental features that may vary across site to capture the variability in program implementation quality. The categories or ratings did not allow the observers to accurately differentiate the important and distinct processes to identify low-quality and high-quality sessions. Moving forward, it is proposed that the observational tool be revised to accommodate more specific indicators of program quality.

Section 3. Sports Participant Outcomes

The third and final component of the 2013-14 evaluation efforts was to explore outcomes for sports participants. These findings are limited to language development and academic performance outcomes because these data could be ascertained from LAUSD records from middle school sites. The quantitative findings include statistical profiles of students participating in LA84 Foundation sports and when possible, a matched comparison sample, to explore student outcomes for the 2013-14 school year. Additional information about the matching techniques employed for these analyses can be located in Appendix A.

Interim Outcome Indicators

Interim outcome findings relate to groups of outcomes that take place more immediately following (proximal to) sports participation, meaning these outcomes reflect middle school outcomes that may be associated with sports participation that may predict later participant outcomes. For this category, analyses included English language proficiency status, and school-day attendance findings.

Gains in CELDT Scores

One indicator of English language development is growth on the California English Language Development Test (CELDT). We analyzed gains in CELDT test scores from 2010 to 2013. The CELDT test is given in the fall, so the CELDT given during the 2013-14 school year is considered an end-of-year outcome for 2012-2013. At the time we conducted this analysis, CELDT scores from fall 2014 were not available. The sample size in this analysis was limited by the fact that students who redesignate as English Proficient no longer have to take the test, so their progress is not reflected in the gains calculation. As a result, we found that this outcome was sensitive to the sample matching criteria. Under some criteria, LA84 Foundation sports participation was associated with an increase of more than 4 scaled score points, while under other criteria virtually no impact was found. Notably, we did not find a negative association under any of the scenarios. Using a regression method to obtain more precise estimates, we found a significant effect size of 10% of a standard deviation for two years of exposure to LA84 Foundation sports programs. While encouraging, this is correlational data, meaning that a relationship exists but it should not be interpreted as a causal impact. However, it suggests that a focus on EL students might pay dividends, and further research with more data might show the impact more reliably.

Table 4: CELDT Gains by Participation in Years

Years of Participation	Number of Participants	Number of Comparison	Treatment Group Gains	Weighted Comparison Group Gains	Weighted Difference	Sig	Effect Size in SD
1 year	1,761	14,364	27.51	23.49	4.02	***	0.044
2 years	1,659	13,803	42.67	38.11	4.56	***	0.104

Note: Significance values *** $p < 0.005$

Redesignation Rates

LA84 Foundation sports participants were also compared with closely matched non-participants in terms of redesignation from Limited English Proficiency (LEP) to Reclassified English Proficient (RFEP) status for students who started the year as English Learners. Overall, LA84 Foundation sports participants redesignated at a faster rate than non-participants, by about 1% to 2%, a small effect size but a significant outcome. Although small, these results are important because they suggest that recruiting English Learners and providing opportunities for English language use during after-school activities could have a cumulatively important impact on English language development among middle school students.

School Attendance

We examined school attendance as an outcome of interest for this analysis, under the hypothesis that participation in LA84 Foundation sports in the afternoon might motivate higher attendance in classes during the school day. This hypothesis cannot be verified with the data we have available, since it is also probable that students who attend more often during the day are naturally more likely to participate in the afternoon. In our statistical analyses, we found positive correlations between LA84 Foundation participation and school day attendance, but the size of the difference was negligible and statistical significance was inconsistent across multiple models.

Long-Term Academic Outcomes

Because LA84 Foundation sports focus on middle school student participants, exploring academic outcomes starting in 8th grade for students who participated regularly in grade 8, and potentially 6th or 7th grade as well, can demonstrate persistent associations between academic success and sports participation. These following academic outcomes span across 8-10th grades. Given the duration of our longitudinal data set, there are only two class year cohorts for whom we have both matching data prior to their entry to LA84 Foundation sports activities and outcomes for subsequent tenth grade classes. In the future, we would like to add another cohort year to the longitudinal analysis for greater sample size, and we would also like to

examine CAHSEE pass rates as an important tenth grade outcome. With more years of data, we will also be able to examine outcomes in grades 11 and 12, although their connections with the influence of middle school after school programs are likely to be even more tenuous than those for grade 10.

Completion of Algebra I in Grade 8; Completion of Math Courses in Grades 9 & 10

Although Algebra 1 is traditionally a 9th grade course, current policies are to enroll and complete Algebra I in 8th grade. It requires caution to use as an outcome, because the pass rate is conditional on having the opportunity to take the class in 8th grade. For this analysis, any eighth grade student who took Algebra I *or a higher math course* requiring Algebra I as a prerequisite, was flagged as a baseline student. The number of those baseline students who passed Algebra 1b, the required second semester of Algebra, or a higher math course, became the denominator in a ratio greater than zero but less than one: the probability of success conditional on taking the course.

Progress toward graduation requires credit for math courses beyond Algebra I, and a number of such courses are electives as well. The pass rate indicator is the percentage of students in the eight grade treatment and comparison groups who pass at least two semester courses among this list of advanced math courses, including Geometry, Algebra II, Trigonometry, Calculus, and a variety of Mathematical Analysis courses. Because it is not conditioned on taking the courses, this indicator covers a variety of hazards including dropping out of school, moving out of the district, and failing the Algebra I prerequisite, as well as failing the courses actually attempted. However, avoiding these hazards is a positive outcome for the student, so the indicator can be interpreted broadly. The selection of matched comparison students based on data prior to grade 8 attempts to create equivalent groups that can be directly compared in terms of this later outcome.

As shown in Table 5, we found statistically significant differences between treatment and comparison groups in the pass rate for these math courses. The effect sizes were small, especially for the tenth grade, but the effect sizes for eighth and ninth grade were large enough to be considered academically important.² In sum, these findings suggest that regular participation in LA84 Foundation sports during 8th grade is associated with higher pass rates for Algebra 1 and more advanced mathematics courses in grades 9 and 10 compared to a constructed comparison sample of non-sports program participants.

² To the extent that enrollment in ninth grade higher math courses is conditional on passing eighth grade Algebra I, these two results are not independent. They also exclude any effect on passing Algebra I in ninth grade, which is, for disadvantaged students in LAUSD, a more commonly faced and critical hurdle. However, because it is a positive outcome conditional on a negative outcome, passing Algebra I in eighth grade, we did not model it here. On the other hand, passing higher math courses in tenth grade is not conditional on which grade Algebra I was passed, so it is a composite effect.

Table 5: Math Pass Rates For Participants & Non-Participants

	ALGEBRA Grade 8	HIGH MATH Grade 9	HIGH MATH Grade 10
Treatment Sample Size	10,696	9,063	6,752
Comparison Sample Size	43,445	51,610	46,673
Treatment pass rate	25.0%	14.3%	23.3%
Comparison pass rate	22.0%	12.6%	22.0%
Matched difference	3.0%	1.7%	1.3%
Significance (<i>Clustered GLS</i>)	*** ($p < .005$)	*** ($p < .005$)	*** ($p < .005$)
Effect size	0.072	0.051	0.032

Completion of Core Academic Courses in Grades 8-10

Since progress into and through high school requires passing specified courses, the number of core courses passed by a student in one year is a measure and predictor of success. For this analysis, students were only compared to others in the same grade, because the number of core courses required and available changes from grade to grade. In this report, the core courses counted were the standard and advanced English Language Arts courses for each grade, Algebra I or higher math for 8th grade, and higher math courses for 9th and 10th grades, and grade-appropriate courses in science, history, and social studies. Note that this measure also implicitly indicates that the student did not drop out of school prior to the grade counted for these courses. Starting with matched comparison groups in grade 8, the number of courses passed in subsequent grades means that a student both remained in LAUSD schools and progressed in grade level, and also passed the courses needed to advance.

As shown in Table 6, we found significant differences between participant and comparison groups in the number of core academic courses passed. The differences appear small, less than a third of a semester course in grade 8, less than a fifth of a course in grade 9, and less than a seventh of a course in grade 10. However, as measured by standard deviations of the population, these are somewhat larger effect sizes than often seen in educational research, and indicate the academic importance of the results. Compared to the sample of non-participants, LA84 Foundation sports participants in 8th grade demonstrated high pass rates in core academic courses in 8-10th grade.

Table 6: Completion of Core Academic Courses in Transition to High School

	CORE Grade 8	CORE Grade 9	CORE Grade 10
Treatment Sample Size	11,970	9,384	6,126
Comparison Sample Size	43,104	43,221	38,364
Difference in courses passed	0.3203	0.1819	0.1322
Significance (fixed effects regression)	*** ($p < .005$)	*** ($p < .005$)	*** ($p < .005$)
Effect size	0.228	0.195	0.141

Grade Point Average (GPA) in Core Academic Courses (Grades 8-10)

Examining grade point average (GPA) is a useful addition to these analyses of student academic success, since it is a quality measure and not just a quantity measure of academic performance. Student GPA was calculated for the same core courses as in the previous section.

Table 7: GPA in Core Academic Courses in Grades 8-10

	GPA Grade 8	GPA Grade 9	GPA Grade 10
Treatment Sample Size	11,950	9,350	6,115
Comparison Sample	43,091	42,833	38,126
Difference in GPA (4-point scale)	0.073	0.054	0.034
Significance (fixed effects regression)	*** ($p < .005$)	*** ($p < .005$)	*** ($p < .005$)
Effect size	0.125	0.095	0.065

As shown in Table 7, we found statistically significant differences between treatment and comparison groups in grade point average in core academic courses passed. As measured by standard deviations of the population, these are smaller effect sizes than for the number of courses passed, but still academically important, especially in the 8th grade results.

Taken together, all of these outcomes in the transition to high school represent a statistically significant and educationally important relationship with participation in LA84 Foundation sports programs during middle school. It is important not to interpret these as a causal impact of LA84 Foundation sports participation because these analyses cannot be used to make conclusive statements about the role LA84 Foundation sports participation played in producing these group differences. It is possible that relevant characteristics of student participants may predict both participation in sports and academic performance and success. However, these analyses do not allow us to control for these potentially relevant characteristics of the students. It may be that middle school students who are willing and able to participate in

a sports activity for at least 15 days of a school year are also students who are more likely to complete required courses successfully in grade 8 and the first two grades of high school.

Standardized Test Scores

Over several years of analysis, we have examined academic achievement in terms of standardized test scores on the hypothesis that after-school sports participation might be associated with higher test scores through such mediators as daytime attendance, improvement of study habits and self-efficacy, and time provided for homework and tutoring. However, we have been unable to identify consistent patterns in this relationship. The linkages from after-school participation to academic test scores are tenuous at best, and confounded with other relevant experiences or background characteristics of the students.

Summary of Sports Participant Outcomes

Using a constructed comparison group of non-participants, our findings demonstrate that LA84 Foundation sports participants fair better on language development during middle school and academic outcomes in 8th grade and through high school. LA84 Foundation sports participants had higher rates of redesignation to English-proficient status compared to matched comparison middle school students. Furthermore, participation in LA84 Foundation sports was associated with higher pass rates for required math and other core courses in 8th grade and high school (9-10th grade), as well as higher grade point averages for core courses, in comparison to non-participating students. These consistent associations suggest that student participants in sports programs demonstrate stronger academic success than non-participants, although statements cannot be made about whether LA84 Foundation sports participation is the cause of these effects. Other potential student outcomes, including middle school attendance and standardized test scores, were not related to LA84 Foundation sports participation.

Overall Recommendations

2013-14 Evaluation Recommendations

This report attempts to showcase the strengths and positive associations of sports participation among middle school students, and suggest areas for targeted program improvement. Based on the three primary data sources examined, the following recommendations are developed to inform program practices in the upcoming years.

- **Strengthen targeted recruitment efforts for sports activities.**
 - Targeted recruitment efforts should be maximized to attract female students. Female students probably have the greatest potential for growth among LA84 Foundation sports groups since they still represent only about 40% of the program's participants. Adding sports that are likely to have a substantial number of female participants – as well as permitting soccer to overlap some of the other sports – may be promising approaches to increasing female student participation.
 - Continue to facilitate multiple-sport participation and retention of students across the middle school years. This includes recruiting participants in the early middle school years and retaining these students in the program over time.
 - Employ targeted strategies to recruit English Learners and provide frequent experiences of English language use during sports activities. These efforts could have a cumulatively important impact on English language development among middle school students.

- **Develop a stronger conceptual understanding of sports participation to inform broader explorations of participant outcomes and identify important mechanisms for student development.**
 - Research surrounding youth sports participation has identified a diverse range of relevant intrapersonal, psychological, and social-emotional outcomes that are highly aligned with sports participation in middle school and beyond. The LA84 Foundation and BTB should consider expanding the participant outcomes beyond academic achievement, especially to capture more proximal participant outcomes more aligned to sports participation as they may reveal stronger impact and benefits for participants.
 - A logic model displaying the program's intended theory about how it will lead to positive youth development is recommended to illustrate more explicit links between sports participation and relevant participant outcomes. This logic model

- can guide future measurement of relationships between sports participation and other non-academic outcomes employing additional evaluation measures.
- The program should also aim to identify mechanisms (and display them in the logic model) that may explain positive academic results linked to sports participation so that the program can strengthen and enhance those program components.
- **Improve measurement tools employed for evaluation purposes.**
 - Employ a more comprehensive measurement and observational system to fully capture program implementation quality. A revised observational tool could accommodate more specific indicators of program quality found in the published literature, including positive staff-student relationships, peer relationships, positive coaching, student leadership opportunities, active engagement, and skill development
 - Consider using surveys or qualitative interviews/focus groups to understand student experiences in sports activities and the benefits they derive from participation.
 - Leverage other available data sources to more fully capture participant experiences and outcomes, including (but not limited to) the LAUSD Student Experience Survey.
 - **Continue to invest in continuous quality improvement efforts informed by evaluation data to ensure that program activities maximize positive student experiences and most effectively produce intended developmental impacts.**

Appendix A: Statistical Matching for Outcomes Analyses

The outcome analyses for English language development and the transition to high school outcomes are based on carefully matching LA84 Foundation sports participants with non-participating students in the same schools. The treatment group for these analyses consisted of cohorts of students who participated in LA84 Foundation sports for 15 days or more during their eighth grade year. Separate models were calculated for cohorts who started participation in sixth, seventh, and eighth grades, thus reflecting three, two, and one year of participation, respectively. A pooled model of eighth graders with all three starting grades was calculated as well. The results presented in this report are based on the pooled model.

Comparison group students were matched with participants (treatment students) using baseline data from the year before a participant's first year of participation. This helps to ensure equivalent groups, since program effects could influence data from any year after beginning participation. Since comparison students do not have a "first year of participation," the entire pool of comparison students was available for matching with treatment students in the same grade cohort up to three times. However, the treatment groups were mutually exclusive, with different baseline years and varying characteristics. Thus, each comparison group was selected independently to match its own treatment group. Outcomes were compared on a matched cell-for-cell basis, with the data for each comparison group weighted by the number of treatment students in the same cell, instead of the number of comparison students, to ensure statistical balance and avoid composition bias. Statistical significance was conservatively determined using the number of treatment students in each cell as the nominal sample size for both treatment and comparison groups in the same cell.

An alternate method using linear or logistic regression was also used to test the sensitivity of results and obtain formal standard errors. Only treatment students and comparison students from the above matching procedure were included in regression samples. For linear regressions, fixed effects by school were used to avoid composition bias, and robust standard errors using school as a clustering variable were obtained. For logistic regressions, Generalized Least Squares (GLS) random effects by school were used to avoid composition bias. Regression results were very similar to results from cell-by-cell matching, with the advantage of providing formal standard errors and additional diagnostic statistics that would have to be calculated more laboriously and in less standard ways for the matched results. For these reasons, regression results rather than matched group results are presented in the tables and figures in this report.

Tables A1 and A2 show the sample sizes for treatment and comparison groups by school year and by years of participation in LA84 Foundation sports programs.

Table A1: Number of Students in Comparison Groups by School Year

Eighth Grade Year Ending	Treatment Students	Comparison Students
2010	1,590	41,447
2011	2,043	37,864
2012	3,810	34,849
2013	4,027	32,695
2014	4,469	31,759
Total	15,939	178,614

Note: Totals for treatments are exclusive, with each student counted only once. Totals for comparisons are inclusive, with most students counted more than once.

Table A2: Number of Students in Comparison Groups by Years of Participation

Years of Participation	Baseline for Matching	Treatment Students	Comparison Students
Grade 8 (1 yr)	Grade 7	11,457	178,614
Grades 7-8 (2 yrs)	Grade 6	3,291	137,132
Grades 6-8 (3 yrs)	Grade 5	1,191	99,270
Total		15,939	415,016

Note: Totals for treatments are exclusive, with each student counted only once. Totals for comparisons are inclusive, with most students counted more than once.