



# CALIFORNIA STATE SCIENCE FAIR 2011 PROJECT SUMMARY

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<b>Project Title</b> <b>And the Winner Is...!</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> If a basketball or football team is winning at half time, then the majority of the teams will win the game overall.</p> <p><b>Methods/Materials</b> Two thousand and fifty-six basketball and football game scores were collected, and the second and fourth quarter scores were examined. Eight hundred and seven of these scores were high school games (413 basketball, 394 football), 1,131 were college games (670 basketball, 461 football), and 118 were professional level games (58 basketball, 60 football). The scores were found in scorebooks provided by coaches, or were obtained from reliable online sources (espn.go.com and maxpreps.com). The 2nd and 4th quarter scores of each game were compared to determine if the teams winning at half time won the games overall. The scores were placed into either one of two categories; the 1st category consisted of games in which the team winning at half time won the overall game (win-win games), and the 2nd category consisted of games in which the team losing at half time won the overall game (lose-win games). Games in which the two teams were tied at half-time were excluded because of the nature of this project. Percentages of each of the categories were calculated, and graphs were made to illustrate the collected data.</p> <p><b>Results</b> Out of the 2,056 basketball and football game scores collected, 1,734 games were categorized as win-win games, and 322 games were categorized as lose-win games. Eighty-four percent of the total number of games were win-win games and 16% were lose-win games. High school games accounted for 34% of the win-win games, college games accounted for 45%, and professional games accounted for 5%.</p> <p><b>Conclusions/Discussion</b> Overall, the data did support the hypothesis. Eighty-four percent of the total numbers of games were games in which the teams winning at half time won the entire game. This 84% included 357 high school basketball games, 348 high school football games, 551 college basketball games, 384 college football games, 42 professional basketball games, and 52 professional football games. Sixteen percent of the total number of games did not fall under this category. This is important when considering whether basketball and football games need to have four quarters, or rather just two quarters. Because 16% is still a significant number, it is probable that basketball and football games will continue to have four quarters.</p>	
<b>Summary Statement</b> A comparison of 2nd and 4th quarter scores for high school, college, and professional level basketball and football games.	
<b>Help Received</b>	