

# Time manipulation in the NBA: Going two-for-one

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June 15, 2013

# An example

*Rockets at Thunder (Round 1, Game 5, 2013 NBA playoffs)*

**[35.9 seconds left in third quarter]** Houston rolls the inbound pass up the floor. Oklahoma City chooses to settle back defensively, allowing Houston to advance the ball without starting the game clock.

**[33.2]** James Harden picks up the ball and immediately makes a 3-pointer with 33.2 seconds left on the game clock, initiating a two-for-one for Houston. Houston applies some full-court pressure defensively, preventing Oklahoma City from stealing the two-for-one.

**[09.8]** Kevin Durant makes a two-point jumper at the end of the shot clock.

**[00.4]** Aaron Brooks makes a two-point jumper just before the third-quarter buzzer.

*At the end of the third quarter, Houston outscores Oklahoma City, 5 to 2, in this two-for-one sequence.*



# The question: Go two-for-one?

Time management is an area of interest for teams hoping to maximize their performance. As the final seconds of a quarter tick off the game clock, a team with the ball can choose one of two actions:

## **Two-for-one**

An initial, hurried possession that ends with 29 to 35 seconds left on the game clock. The difference between the game clock and the 24-second shot clock allows for a second, short possession in the final seconds of the quarter.

## **One-for-one**

A normal, more calculated possession that runs down the shot clock and normally results in the opposing team having the final possession of the quarter.

## The quandary for a head coach:

Should my team attempt a quick shot with the intent of getting a second possession? Or should we run down the clock and look for a safe scoring opportunity?

# Answering the question

End-of-quarter play sequences were extracted from a play-by-play list of 978 regular-season games during the **2011-12 NBA season**, available on [basketballvalue.com](http://basketballvalue.com).

Statistical software was used to develop a classification system for determining the strategy used (either two-for-one or one-for-one), calculate the total number of points scored by each team involved, and the total number of actual possessions by each team.

	GameID	LineNumber	TimeRemaining	Entry
209862	20120220PORLAL	304	00:12:48	[POR 63-80] Matthews 3pt Shot: Made (9 PTS) Assist: Crawford (5 AST)
209863	20120220PORLAL	305	00:12:28	[LAL] Blake 3pt Shot: Missed
209864	20120220PORLAL	306	00:12:26	[POR] Batum Rebound (Off:3 Def:2)
209865	20120220PORLAL	307	00:12:06	[LAL] Murphy Substitution replaced by World Peace
209866	20120220PORLAL	308	00:12:04	[POR 66-80] Batum 3pt Shot: Made (18 PTS) Assist: Wallace (3 AST)
209867	20120220PORLAL	309	00:12:01	[LAL] Bryant 3pt Shot: Missed
209869	20120220PORLAL	310	00:12:00	[LAL] Team Rebound
209868	20120220PORLAL	311	00:12:00	End of 3rd Quarter

*At the end of the third quarter, the Lakers initiate a one-for-one by holding the ball and shooting with 28 seconds left on the game clock, leaving too little time for a meaningful last shot. In this sequence, Los Angeles gets zero points on two possessions while Portland gets three points on a single possession.*

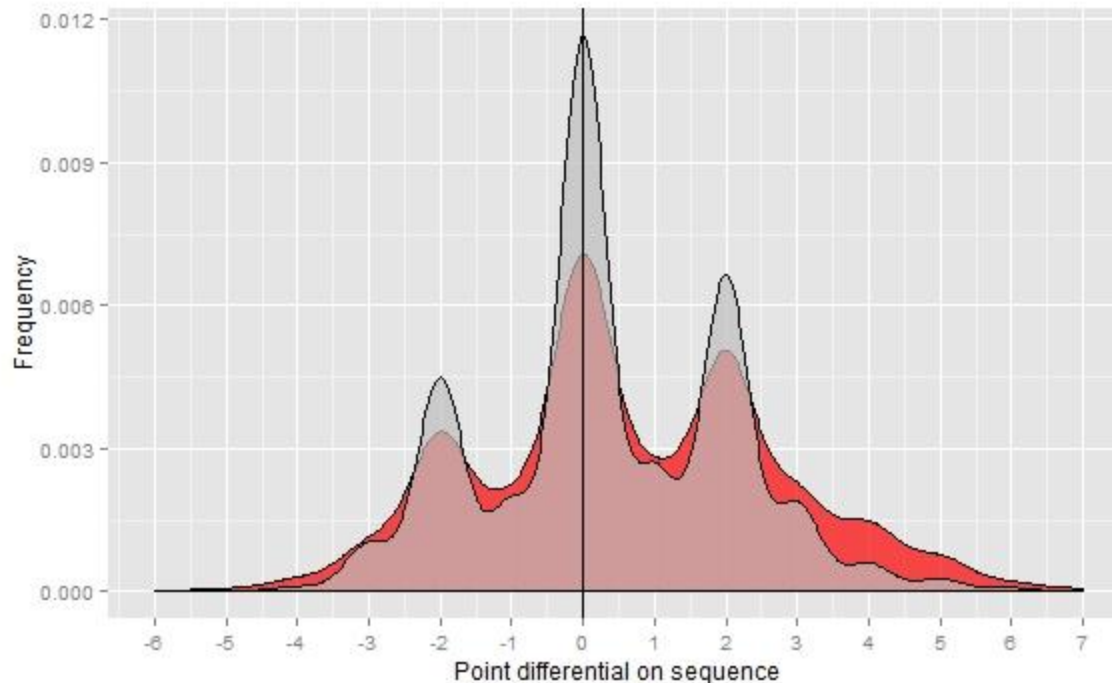
# Findings

## Mean point totals for each team

	Two-for-one	One-for-one
Initiator	1.931 pts	1.336 pts
Opponent	1.289 pts	0.980 pts
NET	+0.642 pts	+0.355 pts

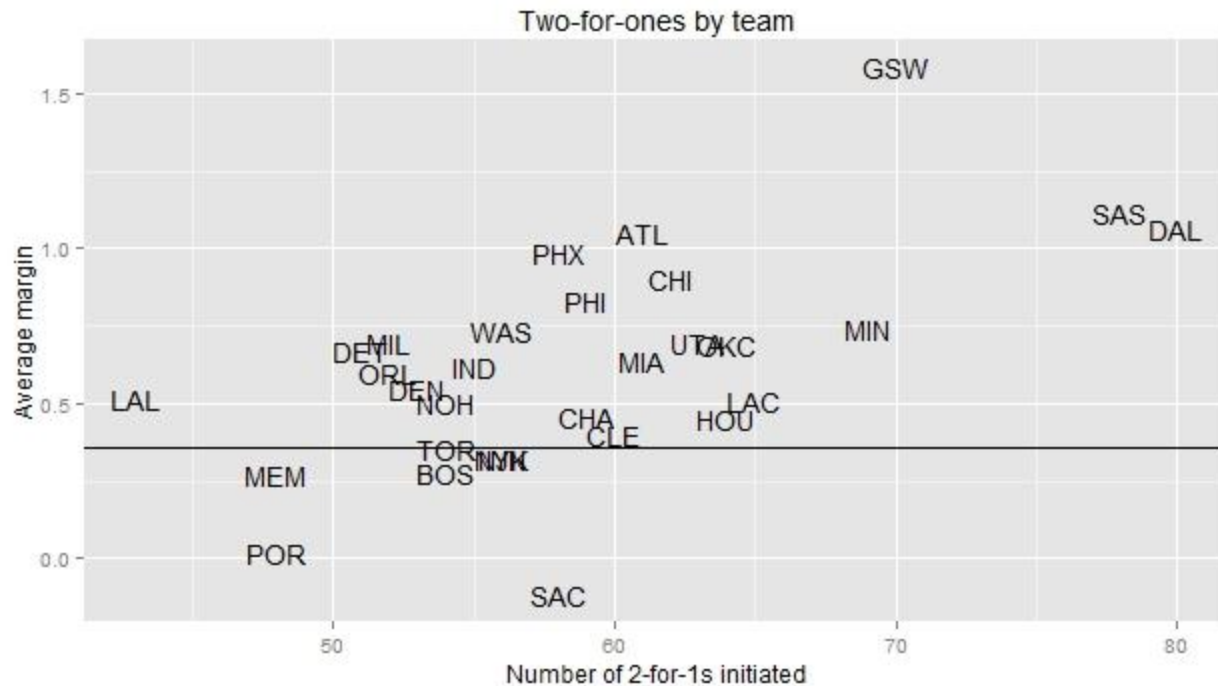
Teams initiating a two-for-one on average outscored their opponents by a statistically significant margin of 0.642 points at the end of a particular quarter. If a team initiated a two-for-one in each of the first three quarters, it could gain close to two points on its opponent, which could prove valuable heading into the fourth quarter of a close game.

# Findings



Point differentials of two-for-ones are represented by red and point differentials of one-for-ones are represented by gray in this density plot. Two-for-ones accounted for many of the point differentials larger than +2, the most favorable end-of-quarter outcomes.

# Findings



Average point differentials on two-for-ones for all 30 NBA teams during the 2011-12 regular season plotted against number of two-for-ones initiated. The horizontal line indicates the expected return of a one-for-one, which seven teams fell below on two-for-ones.

# The 2011-12 Lakers

During the regular season, the Lakers had 100 chances to initiate a two-for-one. They went two-for-one 43 times (fewest in the league) and one-for-one 57 times (tied for most in the league).

## Teams ranked by two-for-ones initiated (2011-12 season)

	Team	2for1s	Pts	OPts	Margin	Avg Marg
1	Dallas Mavericks	80	155	70	+85	+1.06
2	San Antonio Spurs	78	164	77	+87	+1.12
3	Golden State Warriors	70	169	58	+111	+1.59
4	Minnesota Timberwolves	69	150	99	+51	+0.74
5	Los Angeles Clippers	65	113	80	+33	+0.51
	League Average	58.8	113.5	75.8	+37.7	+0.61
30	Los Angeles Lakers	43	87	65	+22	+0.51

Though the Lakers went two-for-one less than every other team in the league, they were still fairly efficient in those situations. On 43 two-for-ones over the course of the season, the Lakers outscored their opponents by an average margin of 0.51 points, near the league average.



# Always go two-for-one!

Our advice to NBA coaches: **always** take advantage of the two-for-one when your team is in possession of the ball at the right time.

If the baseline strategy is simply to hold the ball for a one-for-one (a strategy that also has some value), the data show the relative gain of a two-for-one is 0.287 points per quarter. Though small, the significance of this difference is something that should encourage teams to always go two-for-one.

The expected value of a two-for-one situation is such that in a discrete scoring system like that of the NBA, on average every four plays will result in an additional one point. One point can be the difference between the end of a season and hoisting up a championship trophy. This added expected value comes with **no expected downside**.

# The right personnel

How can a team best implement the two-for-one strategy? By focusing on how to get a quality shot on the first, hurried possession.

**Plays:** Plays specifically designed for quick scoring, such as an aggressive dribble-drive, should be employed at the ends of quarters to allow for the best scoring opportunity on the first possession.

**Players:** The ball should find players that can shoot quickly, such as quick-release shooters or strong dribblers that can take the ball to the basket.

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