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Baseball's New Stadiums?**

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WHEN IS THE HONEYMOON OVER FOR BASEBALL'S NEW STADIUMS?

New baseball stadiums invariably lead to sharp increases in attendance in the year following their construction. Economists have dubbed the impact on attendance of a new sports stadium the “honeymoon effect.”¹ Over time, however, the warm fuzzy feeling of a new stadium dissipates and the novelty fades. Does the honeymoon effect last much more than a single season? When is the honeymoon over?

In this short research note, we examine team attendance at the twelve new stadiums in Major League Baseball (MLB) completed between 2000 and 2009. In all twelve instances, an existing franchise moved into a new park in the same city. [The newest of the twelve teams, the Washington Nationals, formerly the Montreal Expos (1969-2004), played in RFK Stadium for three years before moving into Nationals Park in 2008.] We collected data on game-by-game home attendance for the last year in the old stadium and each of the first three years in the new stadium. All data on home game attendance were obtained from www.baseball-reference.com.²

Of the 30 current MLB franchises, twelve moved into newly-built ballparks between 2000 and 2009, as shown in Table 1.³ Nine of the twelve enjoyed an average 39.5 percent increase in attendance their opening year. A paired *t*-test comparing the team's winning percentage in the last year in the old stadium with their winning percentage the first year in the new stadium, however, revealed no discernable difference ($\bar{x} = -.011$, $p = .720$). That is, while new stadiums improved attendance for nine of the twelve teams, that improvement was not parlayed into better teams on the field. The three teams that did not enjoy an attendance increase the first season in their new stadium – the St. Louis Cardinals, the New York Mets, and the New York Yankees – all raised ticket prices an average of 42.0 percent (compared to an average 49.3

percent for teams that enjoyed an attendance increase, $p = .832$ on the mean difference).⁴ But, it is worth noting that the New York Yankees alone raised their average ticket price from \$36.58 in 2008 to \$72.97 in 2009, the year they moved into Yankee Stadium II. Apart from higher ticket prices, New York teams had the untimely misfortune of showcasing their new ballparks in 2009, in the midst of the worst economic downturn since the 1930s.

Table 2 shows the average number of fans per home game for each of four years, one year before and three years after a new stadium. (Save for rained out games that are not rescheduled or extra games needed to decide a wild card playoff berth, most teams play an 81-game home schedule.) The final three columns of Table 2 support three key conclusions. First, the attendance in the opening year of a new baseball stadium was in most cases significantly higher than the year before. Second, in every case but one (the exception being the St. Louis Cardinals, the year after they won the World Series in 2006), teams did *not* enjoy a significantly higher attendance increase in their second year in the new stadium (above their opening year attendance). Third, and most surprising of all, in only three of nine cases was the average attendance higher in the third year in the new stadium than the baseline level the year before the new stadium opened.

Concluding Remarks

For baseball's newest stadiums opened between 2000 and 2009, we have determined that the honeymoon effect on attendance (for most teams) lasts little more than two seasons. For *all* nine teams (whose new stadiums have been in use for at least three years), average attendance in only the third year in their new stadium is below (and, in some cases, well below) their average attendance in the first year in their new stadium. And, for six of these nine teams, their attendance average in the third year is either the same or significantly below their average attendance in the last year in their old stadium.

If a new MLB stadium has a very short-term impact on a team's attendance, why then do MLB teams, on the one hand, and state and local governments, on the other, still pursue them? MLB teams still have the potential to increase profits, in part because ticket prices are higher and partly because the new stadiums tend to have more luxury boxes than the stadiums they replaced. But, for taxpayers, a very short honeymoon effect weakens the argument for community funding of new sports venues.

**Table 1. New Stadiums and Attendance in Major League Baseball,
2000-2009**

<i>Team (Year of New Stadium)</i>	<i>Attendance¹</i>		
	<i>Last Year in Old Stadium</i>	<i>First Year in New Stadium</i>	<i>Percent Change</i>
Detroit Tigers (2000)	2026491	2533752	25.03
San Francisco Giants (2000)	2078365	3315330	59.52
Houston Astros (2000)	2706017	3056139	12.94
Pittsburgh Pirates (2001)	1709119	2428661	42.10
Milwaukee Brewers (2001)	1573621	2811041	78.64
Cincinnati Reds (2003)	1855787	2355259	26.91
Philadelphia Phillies (2004)	2259948	3206532	41.89
San Diego Padres (2004)	2030084	3040046	49.75
St. Louis Cardinals (2006)	3491837	3407104	-2.43
Washington Nationals (2008)	1961579	2320400	18.29
New York Mets (2009)	4047404	3154262	-22.07
New York Yankees (2009)	4298655	3719358	-13.48

¹ Season attendance data are from www.ballparksofbaseball.com/attendance.htm.

**Table 2. Before and After Home Attendance Comparisons in New Facilities,
2000-2009**

<i>Team (Year of New Stadium)</i>	<i>Average Home Attendance</i>				<i>Differences between means</i>		
	(1)	(2)	(3)	(4)	Col. (2) minus Col. (1)	Col. (3) minus Col. (2)	Col. (4) minus Col. (1)
	<i>Last Year in Old Stadium</i>	<i>First Year in New Stadium</i>	<i>Second Year in New Stadium</i>	<i>Third Year in New Stadium</i>			
Detroit Tigers (2000)	25018	31281	24125	18799	Higher ($<.001$) ¹	Lower ($<.001$)	Lower ($<.001$)
San Francisco Giants (2000)	25659	40923	40877	40163	Higher ($<.001$)	No Change (.713)	Higher ($<.001$)
Houston Astros (2000)	33408	37730	35880	31017	Higher ($<.001$)	Lower (.013)	No Change (.057)
Pittsburgh Pirates (2001)	22138	30834	22595	20984	Higher ($<.001$)	Lower ($<.001$)	No Change (.396)
Milwaukee Brewers (2001)	19919	34704	24311	20992	Higher ($<.001$)	Lower ($<.001$)	No Change (.451)
Cincinnati Reds (2003)	23197	29077	28238	23990	Higher ($<.001$)	No Change (.479)	No Change (.462)
Philadelphia Phillies (2004)	28974	40626	33316	34200	Higher ($<.001$)	Lower (.001)	Higher (.003)

**Table 2. Before and After Home Attendance Comparisons in New Facilities,
2000-2009
[Continued]**

<i>Team (Year of New Stadium)</i>	<i>Average Home Attendance</i>				<i>Differences between means</i>		
	(1)	(2)	(3)	(4)	Col. (2) minus Col. (1)	Col. (3) minus Col. (2)	Col. (4) minus Col. (1)
	<i>Last Year in Old Stadium</i>	<i>First Year in New Stadium</i>	<i>Second Year in New Stadium</i>	<i>Third Year in New Stadium</i>			
San Diego Padres (2004)	25063	37244	35429	32836	Higher ($<.001$)	Lower (.046)	Higher ($<.001$)
St. Louis Cardinals (2006)	43732	42589	43854	42351	No Change (.093)	Higher ($<.001$)	Lower (.047)
Washington Nationals (2008)	24217	29005	22716	*	Higher ($<.001$)	Lower ($<.001$)	*
New York Mets (2009)	51165	38942	*	*	Lower ($<.001$)	*	*
New York Yankees (2009)	53070	45918	*	*	Lower ($<.001$)	*	*

¹All *p*-values are based on two-tailed *t*-tests.

Reference

1. C. M. Clapp and J. K. Hakes, "How Long a Honeymoon? The Effect of New Stadiums on Attendance in Major League Baseball," *Journal of Sports Economics*, vol. 6, no. 3, August 2005, pp. 237-263.

Footnotes

1. See, for example, Clapp and Hakes [1, p. 254], who use regression analysis based on *annual* attendance data to show that there were (for stadiums completed between 1950 and 2002) significant increases in attendance up to eight years after the new stadium opened.
2. At www.baseball-reference.com, first click on “teams”. Next click on the name of the desired “Franchise”, the “Year”, and then “Schedule & Results”. Attendance figures are reported under “Team Game-by-Game Schedule and Results”. By making judicious use of “SHARE” (the “Sharing Toolbox”), one can eliminate all but two columns: one aptly titled “Attendance” and the other (an untitled column) indicating home and away games (with blank and “@” row entries, respectively).
3. Only three current ballparks debuted before 1963: Fenway Park (1912), home of the Boston Red Sox; Wrigley Field (1914), originally Weeghman Park, renamed Cubs Park in 1920 and Wrigley Field in 1926, home of the Chicago Cubs; and Dodger Stadium (1962), home of the Los Angeles Dodgers.
4. Ticket prices are weighted averages by seat type. That is, the proportion of each seat type if the stadium were full is used to calculate the weighted average price. Ticket price data are from <http://rodneyfort.com/SportsData/SportsData.html>.