

Study shows excess parking at some Denver sports stadiums

August 4 2014

Sports stadiums in Denver suffer from excess parking, creating unattractive concrete spaces, heat islands, and missed economic opportunities, according to a new study from the University of Colorado Denver.

"We tend to think the more parking, the better," said Wesley Marshall, PhD, PE, assistant professor of civil engineering at the CU Denver College of Engineering and Applied Science. "But too much parking can be as bad as too little."

The study began as a research project for CU Denver engineering student Alejandro Henao and was recently published in the *Transportation Research Record: Journal of the Transportation Research Board*. Historically, sports teams and their host cities have had difficulty determining parking needs. So the researchers set out to see how Denver stacked up, focusing on Coors Field, the Pepsi Center, Sports Authority Field and Dick's Sporting Goods Park.

Henao gained hands-on experience surveying all four sporting venues, noting the number of available [parking spaces](#), number of people arriving per car, examining aerial images, and talking to facilities managers and spectators. The baseball park and the basketball/hockey arena were surveyed during weekday games while football field and soccer stadium data were collected during Sunday contests.

Coors Field saw just 60 percent utilization of its 3,800-space parking lot

during an average game. Including the 2,400 off-site parking spaces, a total of 4,080 of 6,200 spaces were used. The auto occupancy for Coors Field was 2.4 persons per car.

The Pepsi Center had 75 percent of its 4,534 parking spots occupied during the game. Some 3,000 off-site parking spaces at nearby Elyria Gardens and the Auraria Campus were available with 70 percent of those taken. A total of 5,200 spaces out of 7,534 were used and 2.2 persons arrived per car.

Dick's Sporting Goods Park saw its 5,100 space parking lot about 90 percent full on game day. Event auto occupancy was 2.8 persons.

Sports Authority Field had 6,599 parking spots on-site and another 3,500 available within a half-mile of the stadium. The lots were completely full shortly after the game began. The scarcer supply seemed to spur increased carpool rates because it also experienced the highest auto occupancy with 3.0 persons per car.

While game day parking for the football stadium did not result in excess parking, the researchers also considered parking usage at off-peak times. Marshall and Henao said the Broncos play only eight regular football games and a maximum of a dozen home games a season. Annual revenue from their parking spaces is around \$1.6 million but the opportunity cost in terms of land value is approximately \$99 million, which results in only a 1.6% annual return.

According to Marshall, this doesn't take into account the negative impact of excess parking on pedestrians, land values, local businesses, and the character of downtown neighborhoods.

While the Pepsi Center and Coors Field are utilized more often than Sports Authority Field, thousands of spaces still sit unused on most days.

Lots could easily be opened for other purposes such as residential or business developments, park-and-rides, or for what Marshall calls park-and-pedals, which allow bicyclists to park and continue their journey downtown by bike. These solutions could also reduce land being consumed by parking in the downtown core.

Reducing stadium parking is also an option. Some 600 spaces were recently removed at Coors Field to allow for light rail construction without creating a parking shortage. In fact, parking personnel at the stadiums told Henao that they hardly noticed a difference because the lots only fill up for one or two games a year.

The researchers urged teams and cities to rethink assumptions about parking since less parking spots have not resulted in less attendance. People still go to games but are more likely to carpool or find another mode of transportation, especially when the stadium is downtown. Less parking also allows for other development to fill that space, resulting in higher property tax revenues.

Marshall and Henao said the study suggests parking supply and cost are key components in travel behavior for sporting events.

"By transforming inefficient [parking](#) into better economic investments, we can simultaneously incentivize increased carpool rates and other modes of transportation, which can help provide a more positive experience for spectators as well as for downtown businesses, residents, and visitors," they said.

Provided by University of Colorado Denver

Citation: Study shows excess parking at some Denver sports stadiums (2014, August 4) retrieved 27 April 2024 from <https://phys.org/news/2014-08-excess-denver-sports-stadiums.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.