

Does the presence of colleges and hospitals increase home prices?

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Whether the presence of a college or hospital increases a home's value has to do with the institution's size and the ZIP code's population, says a new study by computer scientists at the University of California, Riverside.

The study shows colleges and hospitals do affect [home prices](#) and rents, but not always positively. Prices also rise and fall faster around these institutions, increasing the risk for investors. The results confirm universities and hospitals are "opportunity hubs" with jobs, high wages, and other amenities that can increase real estate value, while other, less well understood factors can decrease price or lead to market volatility.

"One of the questions we wanted to answer is if the presence of a university or [hospital](#) would have a stabilizing effect on [prices](#) in the event of a crisis like the 2008 housing market crash," said Vagelis Hristidis, a professor of computer science and engineering in UCR's Marlan and Rosemary Bourns College of Engineering. "What we found is actually the opposite. Investing close to a university or hospital may not protect you from

price volatility."

A group led by Hristidis and UCR computer science doctoral student Ryan Rivas examined median [home](#) price data from 13,105 ZIP codes over 21 years and rent data from 15,918 ZIP codes over seven years to compare a ZIP code's appreciation, volatility, and vacancies to the size of a university or hospital within that ZIP code. They also looked at data from more than 2.7 million homes for sale and 267,000 homes for rent to determine the impact distance from the nearest university or hospital had on individual home prices.

They found that average home prices and rents were higher in ZIP codes with a university than without, and highest in ZIP codes with a medium-sized university of 10,000-20,000 students.

The proximity to a university had the biggest positive impact on the price of two-bedroom homes and the rent of one-bedroom homes. The impact of distance was slightly stronger for home prices than for rents. The researchers think this may be due to investors buying houses near universities in order to rent them to students and plan to research this in the future.

Homes had higher average prices and rents in ZIP codes with larger hospitals than those with smaller hospitals. The correlation between home price and distance from a hospital was strongest for one-bedroom homes. In smaller ZIP codes with at least one hospital, there was a positive correlation between the number of affiliated doctors and home price appreciation.

However, home prices in ZIP codes with small hospitals were actually lower than in ZIP codes with no hospital. The researchers think this might be because small hospitals are often located in remote rural areas where real estate prices are lower to begin with.

Overall, the strongest correlations occurred in ZIP codes with a population below the national ZIP code average.

The results generally confirmed the researchers' expectations that larger, closer institutions yield higher prices, but also turned up some surprises. Home prices were more volatile in the areas around universities and hospitals, and rent increased farther away from hospitals in some ZIP codes.

"These findings could be useful in improving home price prediction models, which we may investigate in future work," said Rivas.

Although the correlation between volatility and presence of a university or hospital doesn't necessarily imply a cause, the researchers suspect that real estate in these areas may be most attractive to investors, rather than homeowners who plan to settle down in the neighborhood.

"It may be that investors are the first to leave when there's a crisis and the first to buy when there's an opportunity," explained Hristidis. "This may be one reason why areas without high housing demand have an overall more stable market."

The open access paper, "The impact of colleges and hospitals to local real estate markets," by Ryan Rivas, Dinesh Patil, Vagelis Hristidis, Joseph R. Barr, and Narayanan Srinivasan is published in the *Journal of Big Data*.

More information: Ryan Rivas et al, The impact of colleges and hospitals to local real estate markets, *Journal of Big Data* (2019). [DOI: 10.1186/s40537-019-0174-7](https://doi.org/10.1186/s40537-019-0174-7)

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