

## **The Effect of School Ratings on Real Estate Property Values**

It's deceptive and if you are buying a house in Indian Hills subdivision in Cobb County, Georgia, not knowing the market could cost you. Indian Hills is a large suburban subdivision built around a golf course and an amenity package. The subdivision is unique in that straddles two school districts. One of these is East Side Elementary, Dickerson Middle School and Walton High School. The other part of the subdivision is districted to East Valley Elementary, East Cobb Middle and Wheeler High School. These are two very different districts and not thought of as being equal in education quality. This project will investigate how the assigned school district affects the final sales price of the home.

Indian Hills was one of the first planned unit developments in Cobb County. It was begun in 1969 and originally planned for 500 homes. Today it has grown to 1680 homes on over 2,000 acres. Due to its very large size, there is always an active real estate market generating data. Currently there are over 40 listings and within the last year, I was able to identify over 30 home sales which were evenly split between the two school districts. Home prices in the subdivision tend to be between 300,000 and 500,000 making it an ideal target for young families with children. So, school district should be an important factor in home buying decisions for most buyers.

I could have used sales data from a much wider area, but I thought it was important that the homes be relatively close together so that locational differences are minimized and that they be roughly similar in age, appearance and size. I was willing to sacrifice quantity of data over quality of data.

This information will be important to home buyers, especially ones that are not familiar with the area. It will also be useful to real estate appraisers when doing work in Indian Hills.

### **Data Identified and Proposed Methodology**

I will be using school ratings from Great School Ratings, US News and World Report, Niche.com and School Digger to quantify the difference between the districts. I will give equal weight to Elementary, Middle School and High School ratings. This data is categorical (A, B C for example), based on ratings (#5 out of 40 for instance) and numerical 9 on a 10 scale. To generate an average rating, the data will need to be normalized.

Real Estate closing data will come from Zillow.com which in turn gets its information from the two large multiple listing services in the Atlanta area, namely MLS (Multiple Listing Service) and FMLS (First Multiple Listing Service). I won't be able to inspect the homes so remodeling, curb appeal and view will generate some noise in the data. Since the subdivision is based around a golf course, there may be some houses with a golf view. I suspect these will appear as outliers and be easily identified. I found some ward and school boundaries geo data on the Cobb County web site but I don't know if these will be needed since the real estate data already identifies the school districts.

Of course, this problem lends itself to regression if the school ratings can be quantified. It will be interesting to see if the best fit is linear or non-linear. I will also experiment with K means clustering to see if the markets naturally cluster by school district or other Foursquare amenities.