

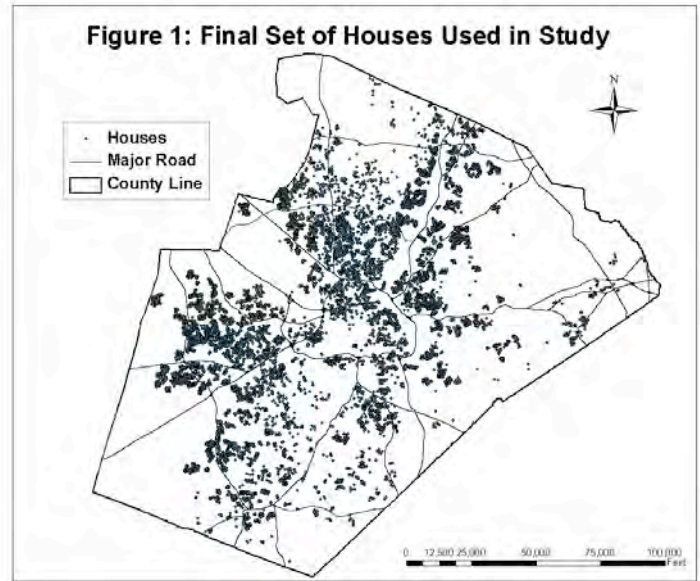
The Economic Benefits of Open Space in Wake County, North Carolina

Wake County is facing the rapid loss of open space. As of 2003, only 9% of Wake County was protected open space, and remaining open spaces were being developed at the rate of 27 acres per day. Open space provides numerous benefits to Wake County which will be lost or compromised if current development patterns continue unaltered. These benefits include water purification and protection of drinking water supplies, provision of wildlife habitat, and human health and recreation benefits.

Open space also provides a variety of economic benefits. By purifying and protecting water supplies, it avoids costly water treatment facilities. By preserving natural amenities, it keeps tourists coming to the area. And by enhancing the property value of surrounding homes, open space generates additional property tax revenues that flow back to the local government.

Numerous studies across the country have demonstrated that proximity to open space has a significant and positive impact on residential property values. In 2005, the Wake County Department of Parks, Recreation, and Open Space commissioned a study to determine whether or not Wake County's open spaces are increasing property values. This study was conducted by Katherine Henderson, a Masters student at UNC's Department of City & Regional Planning in Chapel Hill.

In order to examine the effect of open space proximity on sale price, this study chose a dataset of over 14,000 single-



family homes sold in Wake County in 2004 (see **Figure 1**).

Ms. Henderson gathered information from the Wake County Tax Assessor's office about the structural characteristics of each of the 14,000+ houses in the study. She focused on house attributes known to influence sale price, including square feet of living space, number of bathrooms, and lot size. Neighborhood characteristics were then assigned to each house using Census 2000 data. Finally, Ms. Henderson measured the distance from each house to the nearest open space. Open spaces were divided into three categories:

- 1) public open spaces;
- 2) golf courses; and
- 3) other open spaces, including farm, forest, and vacant land.

The distribution of open spaces of each type throughout the county is shown below in **Figure 2**.

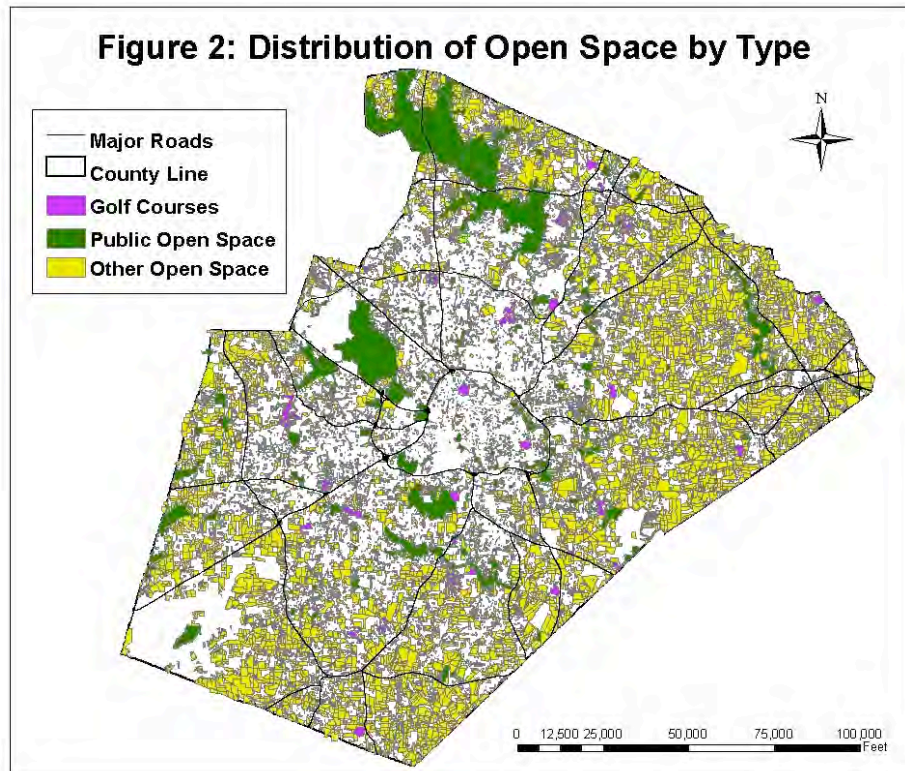
In total, this study examined the effect of eighteen house characteristics on sale price. This included twelve structural/neighborhood characteristics, proximity to each of the three open space types, and the size of the nearest open space of each type.

With the help of statistical software, Ms. Henderson evaluated the contribution of each characteristic to the total sale price of the home. As expected, she found that houses with more square footage, stories, and bathrooms sell for more. Air conditioning and larger lot sizes raise sale price, as does a house's location within a municipality. In general, results for the structural/neighborhood characteristics followed expectations, echoing similar studies conducted throughout the country.

With regard to open space, Ms. Henderson found that homes in Wake County sell for significantly more money if they are located closer to any type of open space. In general, larger open spaces were found to have a greater impact on sale price.

Using her results, Ms. Henderson calculated that an average home¹ in Raleigh would be worth approximately \$4,220 more if it were within 1500 feet of a public open space than it would if it were located farther than 1500 feet from a public open space. This difference represents a 2.09% change in property value, and would generate an additional \$42 annually in county property taxes per house.

This research confirmed that investing in Wake County's open spaces is a good economic decision. Open spaces provide local governments with a modest return on investment in the form of increased property tax revenue. This is only one of the many economic benefits associated with open spaces. When added to the myriad environmental and public health benefits, the case for aggressive conservation of Wake County's remaining open spaces is overwhelming.



¹ An “average home” for the purposes of these calculations is a hypothetical house with the median characteristics for all variables.