Cutter et al. feedback

This paper is an important contribution to the literature because it focuses on the dynamic aspects of open space acquisition. Primary motivating question is: How do property values change over time when land that was treated informally or formally as open space is permanently protected?

The authors estimate the effects of different time periods on the sale price of properties: pre-program period, program development, and acquisition period. The major finding is that the effect on sale price declines from the pre-program period to the planning period, and is close to zero (and is insignificant) during the acquisition phase.

Methodological approach is a hybrid of a repeated sale/hedonic price approach that draws heavily from Case et al.'s (2006) publication in *Real Estate Economics*. The authors also draw from the literature on financial economics to motivate the capitalization of amenities into sale price. Extensive empirical tests to check validity.

Major comment #1: Background

Focus is on preserves in Riverside County, but they are described in the paper as "open space." Need to provide information on what kinds of recreation activities can occur in these preserves. Proximity to some open spaces may have a negative effect (heavy usage, noise, etc.). Preserves were a result of an ESA listing, so does proximity bring any potential restrictions on how properties can be used? Are there open spaces other than the preserves in the county?

Irwin's (2002) paper in *Land Economics* finds that open space is valued for providing an absence of development, rather than a particular bundle of open space amenities. *Q:* can you distinguish between the different motivations for sale price increasing?

Major comment #2: Model/utility function

Paper includes a theoretical model of the utility for buyers and sellers. This model provides the foundation for open space being capitalized into the sale price of homes. The utility of a buyer is based on composite good consumption, residential housing consumption, distance from the open space, and a volatility coefficient that reflects the likelihood of open space preservation.

The model could be expanded to acknowledge that utility derived from open space acquisition is from use and nonuse values (recall the listing of Stephens' Kangaroo rat under the ESA). Could also acknowledge the complexity of the preserve system by summing the expected marginal utility over all preserves.

I didn't understand why the utility of residential housing consumption (H^n) and the expected value of the marginal utility derived by the individual from environmental quality from the public good was in the seller's utility function. I

can see how these could influence the price of a house sold, but I don't see why these are included as separate terms.

Major Comment #3: Empirical Work

Focus is on repeat sales, but some properties seem to constantly be on the market. Dropped those that transacted more than 10 times, but kept observations that had 8 sales. Why truncate at 8? Are the properties selling multiple times representative of the overall housing market? Maybe these are the lemons? Don't control for age of property, so maybe this is correlated with quality (and the reason why these properties are on the market)?

Don't understand the reason for choosing the transaction pair with the closest sequence order greater than 1 year. This needs to be justified. These may be properties that have undergone renovation (flipping), so the critical assumption in the repeat sales analysis that property attributes are constant may be violated. If this occurs then (from Case) "the repeat sales analysis is suspect."

The socioeconomic information is for one point in time – 1990 census at the zip code level. Paper acknowledges that future versions will bring the census information down to the tract or block level, but I suspect the socioeconomic characteristics are changing over the period of your analysis (1988-2004). Couldn't these be correlated with your explanatory variables?

Propensity score analysis includes three time period dummies: < 1995, between 1995 and 2000, and after 2000. Don't understand the reason for this breakdown – how is this related to RCIP? Timeline suggests < 1998, 1998-April 2002, after 2002.

Major Comment #4: Findings

Estimate that houses with a decline in open space distance increased their value, on average, by $2,918 (slightly less than 1%). Total increase is slightly over $30 million. Should also include calculations to support the $30 million estimate. What was the cost of the program?