



What is the Amenity Value of Golf Course Living?

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I. Abstract

This paper estimates the amenity value of golf course living in both McMinnville and Newberg, OR. The data set consists of houses on and off the golf course in both cities, and was collected on Zillow's website from the past two years of house sales. I defined a house as being on the golf course if it was on the course-side of nearby streets, was located in the "green area" on the aerial map which roughly outlines the golf course perimeter, and also if the house description mentioned golf course frontage. I test the hypothesis that private golf courses offer a higher percentage markup on the value of a house than public courses. The results of the regression analysis support the percentage markup hypothesis. The markup on the price of a house on Chehalem Glenn Golf Course is 12.5%, while the percentage markup of Michelbook Country Club is 14%.

II. Empirical Model and Variables

$$PRICE_i = B_0 + B_1(SF)_i + B_2(AGE)_i + B_3(LOT)_i + B_4(GOLF)_i + B_5(MAC)_i + e_i$$

PRICE_i = Final sale price of a given house.

SF_i = Square footage.

AGE_i = The age of the house in years.

LOT_i = Size of the lot in acres.

GOLF_i = A dummy variable indicating whether or not the house is on a golf course or not.

MAC_i = A dummy variable indicating if the house is in McMinnville or not (alternative: Newberg).

e_i = stochastic error term

i indexes homes where i = 1...141

III. Theory and Hypothesis

SF_i is hypothesized to have a positive relationship with PRICE_i. The larger the square footage, the bigger the house, thus higher the final sales price.

AGE_i is hypothesized to have a negative relationship with PRICE_i, since the older a house is, the less valuable it is all else constant.

LOT_i is hypothesized to have a positive relationship with PRICE_i. The bigger is the lot a house sits on, the higher is the price of that home.

GOLF_i is hypothesized to have a positive relationship with PRICE_i. This is based on the hypothesis that golf courses add amenity value to houses located on them.

MAC is hypothesized to have a negative relationship with PRICE_i. Houses in McMinnville are on average cheaper than houses in Newberg.

IV. Data

- Cross-section data set consisting of 141 different sales transactions in Newberg and McMinnville in the last 2 years.

- McMinnville: 71 houses (34 on course, 37 off)
- Newberg: 70 houses (33 on course, 37 off)

- Data Source: All data came from Zillow.com

V. Empirical Results

Explanatory Variables	Coefficient	T-Statistic (Prob.)
Intercept	133,585.7	8.49 (.0000)
SF	78.43798	11.61 (.0000)
AGE	-1,050.128	-3.03 (.0029)
LOT	23,8264.8	5.88 (.0000)
GOLF	43,299.34	5.65 (.0000)
MAC	-41,169.68	-4.75 (.0000)

Adjusted R-squared: .807
Prob(F-Statistic): 0.000

VI. Conclusions

- Based on empirical results, the following prices are estimated holding SF, AGE, and LOT constant:
 - On course, in Mac: \$349,171
 - Off course, in Mac: \$305,942
 - On course, in NB: \$390,340
 - Off course, in NB: \$347,111

- Finally, in order to estimate the percentage markup of houses on a golf course versus those not on a golf course, I divided the on-course price by the off-course price for both cities.
 - McMinnville: 349,171/305,942 = 1.14
 - Newberg: 390,340/347,111 = 1.125

- This concludes that the percentage markup for a house on Michelbook Country Club is 14%, while the percentage markup on Chehalem Glenn Golf Course is 12.5%.