

Impact of Trails and Sidewalks on Nearby Home Values

TTAC Meeting

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Written by Robert Case and Uros Jovanovic

Presented by Robert Case, PhD, PE



Background

- Requested by Isle of Wight County
- Project Steering Team (PST)
 - Jamie Oliver (IW)
 - Tom Leininger (JCC)
 - Helen Gabriel (Suffolk)
 - Paul Filion (Norfolk)- retired
- Purpose: Determine the impact of trails and sidewalks on nearby home values in Hampton Roads

Literature review

- Sidewalks

- Findings:

- Better sidewalk coverage is related to **increased property values** and rental rates.

- Trails

- Methods

- Methods by others: mostly **regression model**

- Regression measures the impact of variables on one side of the equation (e.g. house size, proximity to trail) on the other side of the equation (i.e. sales price).

- Findings:

- Proximity to trail is often related to **increased home values**.

Obtaining Data

- Trails:
 - Elizabeth River Trail (Norfolk)
 - Seaboard Coastline Trail (Suffolk)
 - Virginia Capital Trail (VCT) (James City County)
- Staff requested **sales\$** and **home characteristics** data from localities.
- Status:
 - Norfolk- data provided- unresolved data issues
 - Suffolk- data not provided- assessor's office swamped
 - James City County (JCC)- data provided- **rest of study is JCC/VCT**

Data processing

- Policy variable: **distance** from home to VCT
- Control variables: home **characteristics** (size, age, etc.)
 - Mostly from JCC
 - Additional variables by HRTPO:
 - Calculated “**age**” by subtracting year built from sales year
 - Added binary “**waterfront**” (0/1) variables
- Sales in 2018 and 2019: 392 records
- Removed records with **age 0**: 11 records
 - (for some of these 11, the purchase covered the lot only [no house])
- Final database: 381 records

Dependent Variable: Sales Price

Final Results

Regression Statistics	
Multiple R	0.94
R Square	0.89
Adjusted R Square	0.89
Standard Error	89,906
Observations	381

ANOVA

	df	SS	MS	F	Significance F
Regression	16	2.4307E+13	1.51919E+12	187.946	8E-165
Residual	364	2.94225E+12	8083109882		
Total	380	2.72493E+13			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	\$26,199	\$19,502	1.34	0.18	-\$12,152	\$64,549
Unpaved Driveway (0,1)	-\$15,275	\$20,796	-0.73	0.46	-\$56,170	\$25,619
Waterfront w View of Large Water (0,1)	\$618,879	\$38,036	16.27	0.00	\$544,081	\$693,677
Other Natural Waterfront (0,1)	\$494,659	\$58,139	8.51	0.00	\$380,327	\$608,990
Other Waterfront (lake, marsh, canal) (0,1)	\$22,654	\$22,367	1.01	0.31	-\$21,332	\$66,639
Acreage up to 2 acres	\$69,876	\$24,649	2.83	0.00	\$21,404	\$118,349
Acreage in Excess of 2 acres	\$26,951	\$11,970	2.25	0.02	\$3,412	\$50,489
Large Lot (2+ acres) (0,1)	-\$271,707	\$66,533	-4.08	0.00	-\$402,545	-\$140,868
Age, years	-\$2,010	\$645	-3.12	0.00	-\$3,279	-\$742
Finished Square Footage	\$122	\$7	17.74	0.00	\$109	\$136
Half Baths	\$35,337	\$10,402	3.40	0.00	\$14,881	\$55,793
Finished Basement Square Footage	\$71	\$27	2.66	0.01	\$19	\$124
Open Porch Square Footage	\$242	\$33	7.34	0.00	\$177	\$307
Other Square Footage	\$141	\$29	4.79	0.00	\$83	\$199
Distance to VCT <0.25mi vs. 1mi+ (0,1)	-\$32,702	\$34,988	-0.93	0.35	-\$101,506	\$36,102
Distance to VCT 0.25-0.50mi vs. 1mi+ (0,1)	\$9,484	\$22,787	0.42	0.68	-\$35,327	\$54,295
Distance to VCT 0.50-1mi vs. 1mi+ (0,1)	-\$4,107	\$10,637	-0.39	0.70	-\$25,024	\$16,810

Due to randomness in data, sometimes regression shows relationships that do not truly exist. We choose the 0.05 P-value level b/c we want to be **95% certain that the result is not due to chance.**

For the **green variables**, we have that certainty.

For the **distance variables**, we don't have that certainty.

Discussion

- The above VCT data shows **no statistically-valid impact of trail proximity on home value.**
 - It is possible, therefore, that the trail has **no impact on home value.**
- Alternatively, given that the **literature shows a positive impact** of trail proximity on home values, the above VCT data may show no statistically-valid impact of trail proximity on home value for the following reason:
 - Any **positive impact of the trail is off-set by a negative impact** of proximity to John Tyler Highway (e.g. **highway noise**).

Conclusion

- Based on the above regression, staff is **unable to conclude** that proximity to the VCT has an impact on home value.
 - Potential next steps-
 - If data is obtained from Suffolk or the issues with the Norfolk data are resolved, staff may test the impact of the Seaboard Coastline Trail or Elizabeth River Trail.
 - Alternatively, staff may compare neighborhoods with internal paths to those without.