

Quality-of-Life, Affordable Housing: Take Your Pick

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A few years ago, UConn’s Roper Center for Public Opinion Research conducted a national poll for an April 1997 *Reader’s Digest* article on “The Best Places to Raise a Family.” Among the factors that respondents cited as most important for the quality of family life were: low crime rates, low drug and alcohol problems, good public schools, quality health care, clean environment, affordable cost of living, and strong economic growth. This information about the relative importance of various factors was applied to data from 301 metropolitan areas to construct a quality-of-life index, which was then used to rank the metro areas. Two Wisconsin metros—Sheboygan and Kenosha—topped the list. None of Connecticut’s metro areas made the top 50.

In this article we develop a Quality-of-life (QoL) index for Connecticut towns—one that considers an even more diverse set of factors that make an area more (or less) attractive as a place to live. Some QoL indices are constructed by attaching different weights to local characteristics, based on someone’s notion of each factor’s relative importance. Such indices inevitably reflect personal biases about “what matters.” That’s fine when we personally select a place to live—something we all do—but it doesn’t provide a very democratic or broad-based assessment of QoL. Fortunately there is a more systematic approach that relies on the judgments and actions of many households.

Paying for Quality-of-Life

Economists who study housing markets argue that because people are willing to pay for things that enhance their QoL (good schools and other public services, low crime rates, a cleaner environment, etc.), house prices will adjust to reflect such

community differences, as well as more readily apparent differences in the location, size, and quality of housing. This “capitalization” process has been studied extensively and, by and large, research findings confirm that house prices do reflect such differences—not perfectly, but well enough to reveal the factors that contribute most to towns’ perceived QoL.

Our approach involves three stages. First, applying multiple regression methods to data from Connecticut’s 169 towns, we estimate the relationship between median house value per room and a set of 16 town-level characteristics. Besides controlling for house size by using a per-room measure of value, the model includes: three measures of town location (distances from New York and Boston, and a dummy variable for the presence or absence of shoreline); five local public policy variables (school spending per pupil, noneducational spending per capita, the effective property tax rate, state-aid per capita, and the town’s minimum lot-size requirement); and two measures of the local economy (percentage of the adult population with at least a bachelor’s degree, and per capita income growth from 1990 to 2000). In keeping with the current issue’s focus on “social capital,” we also include six variables meant to capture environmental and social conditions (crime rate, cancer rate, accessible open-space per capita, the presence or absence of a hospital with at least 100 beds, percent of the eligible population that voted in the 2000 election, and library circulation per capita). The data and some of the first-stage results are summarized below.

For each variable, the table gives its 169-town average, its range of values across towns, and the

Factors That Affect Median House Value Per Room in Connecticut’s 169 Towns

	Average	Minimum	Maximum	Elasticity
Location:				
Distance from NY	104.8	31.0	160.0	-1.245 *
Distance from Boston	120.4	61.0	181.0	-0.742 *
Shoreline dummy	0.1	0.0	1.0	0.003
Public policies:				
School spending per pupil	8758.6	6847.4	12094.5	0.623 *
Noned. spending per capita	893.1	419.7	2364.9	0.328 *
Property tax rate	17.6	7.7	32.7	-0.560 *
State aid per capita	544.2	57.5	1870.4	0.120 *
Minimum lot-size	1.3	0.0	5.0	0.023
Economic:				
Percent BA degree	33.7	10.2	74.4	0.453 *
Income growth (90-00)	43.8	16.0	102.6	0.048
Social and environmental:				
Crime rate	18.5	4.6	92.3	-0.149 *
Cancer rate	5.2	1.3	10.8	-0.012
Accessible open space per capita	0.5	0.0	13.3	-0.004
Hospital dummy (100+ beds)	0.1	0.0	1.0	0.009
Voting participation	71.9	35.4	96.7	-0.130
Library circulation	8.4	0.0	25.2	0.013

(* statistically significant)

estimated *elasticity* for that variable—the estimated percent change in median house value associated with a 1% increase in that variable, other factors equal to their average values. Jointly, the variables account for about 85% of the six-fold variation in median house value per room, which ranged from \$16,768 in Hartford to \$102,829 in Greenwich. Not surprisingly, town location measures have some of the strongest effects. Controlling for other factors, housing values tend to decline with distance from major regional centers—New York in particular, but also Boston. The “shoreline town” effect is positive, but statistically weak, probably because the

premium for shoreline property is highly localized within those towns. Data for individual housing units probably would show a much clearer premium for ocean views.

Nearly all of the local public policy variables have either a significant positive effect (school spending per pupil, noneducational spending per capita, and per capita state aid) or negative effect (property tax rate) on the median house value per room. The median house value seems to increase with a larger minimum lot-size requirement, but statistically the effect is weak. On the economic front, recent income growth seems to boost property values, but not nearly as much as the current educational attainment of a town's residents.

Most of the social or environmental factors have the anticipated positive effect (hospital presence, library circulation) or negative effect (crime rate, cancer rate), but among them only crime is statistically significant. Two of the "noneconomic" variables (accessible open space per capita and voter participation) have unexpected negative effects, but again neither factor is significant. This does not mean that such items are unimportant for everyone. Access to public open space might be the deciding factor for some people in their choice of a town, but widespread willingness to pay for such characteristics, as reflected in property values, appears to be minimal. This may simply reflect the difficulty of accurately assessing such information, and hence the market's inability to fully value the less visible features of a community.

Constructing a QoL Index

In the second stage of the analysis, the estimated relationship is used to generate a predicted median house value per room for each town, based on its recorded characteristics. Dividing each town's predicted value by the average value across all towns (\$29,070) gives an index that we interpret as a measure of QoL. The average value of this index is 1.0, with higher values signaling an above-average QoL; the opposite for values below 1.0. Calculated QoL index values for Connecticut's 169 towns range from 0.24 in East Hartford to 3.07 in Greenwich. (For a complete listing of results for the 169 towns, see the third column in our center-fold display, pp.10-11.)

Keep in mind that this QoL measure is more comprehensive than many, reflecting the town's location, public policies, local economic conditions, and a number of social or environmental factors. The weighting of these factors is based on information derived from housing markets, so not surprisingly, towns with a high QoL index also tend to be towns where housing is costly. This positive relationship is clearly seen in the scatter diagram—the third stage of our analysis—which shows the estimated QoL index and the Census 2000 median house value for each of the state's 169 towns.

The median house value in a town might be viewed as the typical cost of access to that town and its particular QoL. From the scatter diagram, it appears that not only does a higher QoL generally cost more, but each increment in QoL is increasingly expensive. Equivalently, each extra dollar

spent on housing tends to buy smaller and smaller increments in QoL, as seen in the generally concave shape of the scatter. Economists would recognize this pattern as evidence of "diminishing marginal returns" in the production of QoL.

Although a higher QoL typically costs more, some towns fare better than others in this trade-off. In particular, towns along the upper "boundary" of the scatter tend to offer a higher QoL for a given housing outlay (or, equivalently, require a smaller housing outlay to enjoy a particular QoL) than towns that lie below the boundary. Some of the boundary towns are identified in the diagram. There are many factors that determine where each town lies with respect to this boundary, but positions are not static. Towns that use taxes more efficiently to produce public services, or provide a more highly valued mix of services, can potentially move up closer to the boundary.

The Spice of Life

Variety has its virtues. Economists who study housing markets and issues of local public finance often tout the benefits of having many communities that differ. Differences in affordability and QoL reflect some things, such as location, that towns cannot control. But the differences also are shaped by tax rates, expenditure patterns, land-use controls, and other public policies. The resulting outcomes offer many options, as seen in the scatter diagram for Connecticut towns, potentially allowing households to better satisfy their personal preferences by finding the "right mix" of quality-of-life and housing affordability.

Households' choices, however, are not just the result of different tastes. A household's options can be constrained by current income, place-of-work, and other personal factors, as well as transportation networks or discrimination in housing and job markets. Market-determined housing values might adequately reflect town characteristics that shape our quality-of-life, but even the most efficient markets don't ensure unlimited access or fair outcomes. And that's usually where the legal system, political processes, and other social mechanisms come more fully into play.

