

As Good as it Gets?

THE QUALITY OF LIFE IN CONNECTICUT AND OTHER STATES

BY STEVEN P. LANZA

Nutmeggers have weathered their share of life's frustrations lately, from damaged roofs caused by last winter's record snowfall to mass power outages from Hurricane Irene and Nor'easter Alfred (the freakish late-October 2011 whiteout). Fortunately, those trials were only transitory. Most of the time Connecticut residents enjoy a quality of life that few other states can match.

LIFE IS GOOD

It might be hard to convince those left in the dark by Irene and Alfred that life in the Nutmeg State is good, quite good in fact. Sure, Mother Nature throws us the odd curveball, but the state is usually spared the worst of the nation's natural disasters. You want snow? Visit Buffalo, N.Y., where they measure the white stuff in feet rather than inches. Hunting hurricanes? Try the U.S. Gulf Coast. And don't forget tornado alley (Texas, Oklahoma and Kansas) or Earthquake Capital U.S.A (California).

There's more to life than the weather, and most people would agree that "quality of life" extends beyond wealth or income, encompassing the quality of one's natural and man-made environments, plus access to health care, education, and leisure activities. By these standards, life in the Nutmeg State is good indeed. Besides its normally temperate climate, Connecticut offers residents ready access to recreational and cultural amenities, good educational institutions, quality health care, and incomes sufficiently high to enjoy them all.

But how, exactly, do we rank against other states? And what of the state's less attractive features, like slow job growth and income inequality?

MATTER-OF-FACTOR

There is no shortage of statistics that reflect quality of life. The trick is to combine these apples-and-oranges indicators of general well-being into a single metric.

Think of the myriad of indicators as manifestations of an underlying, unseen substrate called the quality of life. Our goal is to look for patterns among the visible indicators to make inferences about what lies beneath. A common analytical tool for doing this is called factor analysis.

This particular statistical method explains the variability in a large number of correlated variables with a smaller number of uncorrelated "factors." Just as a wide assortment of cookies, cakes, pastries and pies may be expressed as varying proportions of a few simple ingredients like flour, butter and sugar, so too might a welter of statistics on health, education, society, and the economy be reduced to a small number of essential, quality-of-life building blocks, or factors.

The first table shows the results of a 50-state factor analysis of over two-dozen variables, representing various facets of the quality of life. The numbers represent correlations or "loadings" between the individual variables (in rows) and the two factors (in columns) that explain most of the variability in the data.

The health, education and income variables all load relatively highly on factor 1. Factor 1 might therefore be thought of as a state's quality of life "assets." Pollution, crime, poverty, and unemployment, by contrast, load highly on factor 2. So this factor can be considered as measuring a state's "liabilities." The high negative correlations between area amenities like restaurants and libraries per capita and factor 2 reinforces this interpretation.

The fewer such amenities, the higher a state's factor-2 liabilities score.

POINTS ON THE MAP

Together, these two factors explain 60% of the total variability in the 26 indicators. We can use the factor loadings, along with each state's standardized measures on the different variables, to calculate factor scores for every state. The results are shown in the accompanying scatter plot, with factor 1, assets, graphed on the horizontal axis and factor 2, liabilities, on the vertical.

Quality of life is highest where assets are abundant and liabilities are few—toward the east and south in the diagram. Several states mark the extreme boundary of this space. Farthest east, with the highest asset score, is Massachusetts, (though the Bay State's

HOW VARIABLES CORRELATE WITH UNDERLYING "FACTORS"

Variable	Factor 1	Factor 2
Population Density	0.6989	0.431
Restaurants per Capita	0.5668	-0.4484
Libraries per Capita	0.1796	-0.6594
Air Pollution	-0.0975	0.5568
Average Temperature	-0.3416	0.7074
Rainfall	0.2036	0.587
Cloudiness	0.4587	-0.2196
Water Area	0.5661	0.3231
Property Crime	-0.5133	0.5256
Violent Crime	-0.2738	0.5683
Bachelor's or Higher	0.8503	-0.0289
Teacher Experience	-0.2105	-0.585
Student NAEP Scores	0.6433	-0.4386
Health Coverage	0.6623	-0.3147
Physicians	0.8525	0.2155
Physicians in Patient Care	0.8968	0.1877
Life Expectancy	0.6291	-0.3249
Good Roads	-0.2668	-0.7669
Very Good Roads	-0.2216	-0.5791
Unemployment	-0.1606	0.6569
Jobs	-0.2458	-0.5626
Household Income	0.7514	-0.1427
Poverty	-0.6669	0.474
Inequality	0.0675	0.7233
GDP per Capita	0.5507	-0.1703
Divorces	-0.6116	-0.0535

SOURCE: The Connecticut Economy, based on data from numerous sources.

above-average liabilities score puts it north of the x-axis). Connecticut, with slightly fewer assets but also fewer liabilities, is somewhat west but also south of Massachusetts.

Two other New England states, Vermont and New Hampshire, sit along the quality-of-life “leading edge” too, with a mix of fairly high assets and modest liabilities. North Dakota, at the extreme southern point on the scatter plot, counts the fewest liabilities among states, but it has only average assets.

ADDING IT UP

So what makes for a higher quality of life, greater assets or fewer liabilities? Like beauty, well-being is in the eye of the beholder. Those who value assets more than liabilities will gravitate to places like Massachusetts and Connecticut. Those seeking fewer liabilities will prefer the Dakotas and Wyoming. Any quality of life index must implicitly strike some balance between the pluses and minuses.

One way to combine assets and liabilities is simply to subtract the liabilities from the assets, essentially weighting the two equally. The “equal weight” column in the second table shows how the states rank under this approach. North Dakota comes out on top, followed by Vermont, New Hampshire, Massachusetts, and in fifth place, Connecticut.

But suppose we attached twice the importance to assets as to liabilities. That would put Massachusetts at the top of the list and Connecticut second,

as shown in the second column of numbers. Reversing the relative importance of liabilities to assets gives the third set of rankings; now North Dakota and Wyoming are tops, while Connecticut and Massachusetts drop to number 14 and 15, respectively.

BANG FOR THE BUCK

Two variables omitted from the analysis so far have been housing costs and taxes, measures that correlate positively, not negatively, with economic, social and personal well-being.

In a sense, housing and taxes represent the price of admission to the good life. You can buy entry to a high quality-of-life state, but it means your home will cost more and your taxes will be higher. Accordingly, it might make sense to focus on which states offer the best bargains—the highest quality of life at the lowest possible cost.

Think of quality of life as the output of a production function where housing and taxes are the inputs to production. By estimating a production frontier that identifies the maximum possible output for any given inputs, and then comparing each state to this theoretical maximum, we can determine which come closest to this ideal, or (put differently) are most efficient. The last column of the table ranks states from most to least efficient in this sense, using the equal-weights measure of quality of life.

The most efficient states are in the west and midwest, but New Hampshire ranks second and Vermont fourth. Connecticut places 12th overall but is fourth, behind Massachusetts, among states in the northeast.

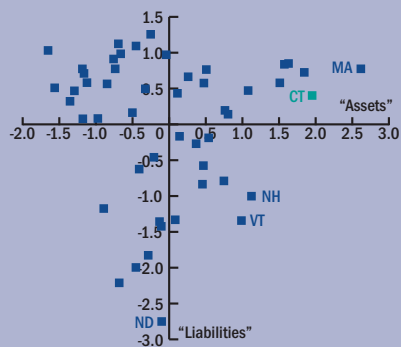
more, 13% of the U.S. population, one-third of the country’s income, and 18% of its advanced-degree holders live within a 200-mile radius of Hartford. That’s a menu of offerings that a North Dakota or Wyoming simply can’t match, and one that any corporate site-selector would hunger for.

STATE RANKINGS: QUALITY OF LIFE AND EFFICIENCY

	Quality of Life Indexes			Efficiency Index
	Equal Weight	Double Asset Weight	Double Liabilities Weight	
ND	1	6	1	1
VT	2	3	3	5
NH	3	4	6	2
MA	4	1	15	8
CT	5	2	14	12
MT	6	21	4	6
SD	7	18	5	3
MN	8	10	10	10
WY	9	23	2	11
AK	10	14	7	23
NE	11	19	8	4
ME	12	11	11	13
LA	13	20	9	7
NJ	14	5	22	17
WI	15	13	12	9
NY	16	7	24	20
MD	17	8	26	19
RI	18	9	27	14
CO	19	17	16	15
VA	20	15	20	16
WA	21	22	17	21
HI	22	12	25	29
PA	23	16	23	18
OR	24	24	21	26
ID	25	31	13	25
UT	26	27	19	22
KS	27	29	18	24
IL	28	25	28	27
DE	29	26	31	33
OH	30	30	29	28
MI	31	28	32	30
IN	32	34	30	32
MO	33	33	34	31
CA	34	32	37	38
WV	35	37	33	39
OK	36	42	35	34
KY	37	39	36	37
FL	38	35	48	36
GA	39	38	41	35
NC	40	36	46	42
TN	41	40	45	40
SC	42	41	43	43
NV	43	45	38	44
TX	44	44	40	41
NM	45	47	39	47
LA	46	43	49	45
AZ	47	46	44	46
AL	48	48	47	48
AR	49	49	42	49
MS	50	50	50	50

SOURCE: The Connecticut Economy.

PLOTTING QUALITY OF LIFE ASSETS AND LIABILITIES



SOURCE: The Connecticut Economy.

CORPORATIONS ARE PEOPLE, TOO

Most economists believe that the best way to create an environment conducive to growth is to get the fundamentals right. Quality of life is a key consideration, both for individuals and families and for big, job-rich companies (or rather their CEOs and managers) that states like Connecticut are eager to attract.

However you slice it, Connecticut offers a premier quality of life. What’s