Beacons of Light for Connecticut's Cities?

BY STEVEN P. LANZA

Historically cities were population magnets, but since World War II their attraction has steadily declined as residents moved to the suburbs and beyond. But the 2000 census revealed that some American cities, New York and Boston among them, are enjoying something of a renaissance, as urban professionals and empty nesters rediscover the advantages of urban living. Might such a rebirth be possible in Hartford and other Connecticut cities, too? What, if anything, might give the Nutmeg State's metros new allure?

Many factors, like proximity to the shoreline and local zoning policy, combine to explain the distribution of the state's population across its landscape. But population estimates suggest that the towns seeing the most growth since the last census are those offering residents better economic opportunities and recreational amenities. And the cities may have an ace up their sleeves. Evidence suggests that population density itself may boost economic efficiency and so serve as an important urban resource.

WHERE WE ARE

Connecticut is among the most densely populated states in the country, ranking 4th from the top in the number of people per square mile of land area, according to data from the last census. New Jersey is tops, Rhode Island is runner-up, and Massachusetts ranks 3rd.

But as anyone familiar with Connecticut's population sprawl problem will attest, residents aren't exactly packed like sardines into the state's urban areas. Our urban areas are far

less crowded than those of most states. Of Connecticut's entire land area of 4,845 square miles, 36% of it, or 1,757 square miles was densely populated enough to be classified as "urban" in 2000. Three million of the state's 3.5 million residents lived within that urban land area, which translates into urban population density of just 1,701 people per square mile. By comparison, the average population density of U.S. urban areas was 2,404. New York and California ranked first and second among the states, with 4,215 and 4,041 urban residents per square mile, respectively. Connecticut placed 38th, right behind New Mexico and just ahead of Alaska.

What explains Nutmeggers' choices of places to live? A regression equation relating population density by town in Connecticut, using 2000 Census figures, to a number of possi-

Population density may boost economic efficiency, and so serve as an important urban resource.

DETERMINANTS OF TOWN POPULATION DENSITY, 2000

Variable	Elasticity	Explanation
*Distance from NYC	-0.81	A 10% decrease in distance to NYC increases population density 8.1%.
*Coast	0.23	A coastal locale raises a town's population density 23%.
*Interstate	0.21	Towns bisected by an interstate have 21% greater population densities.
*Minimum Lot Size	-0.45	A 10% increase in minimum lot size reduces population density 4.5%.
*Equalized Net Grand List per Capita	-1.02	A 1% increase in a town's per-capita grand list is associated with a 1% decrease in population density.
*Per-Pupil Spending	-0.63	A 10% increase in per-pupil spending is associated with a 6.3% decrease in population density.
*Unemployment Rate	0.35	A 3.5% increase in population density is associated with a 10% increase in the share unemployed.
*Median Home Value	1.28	A 1% increase in the median home value is associated with a 1.3% increase in population density.
*Crime Rate	0.42	A 4.2% increase in the crime rate is associated with a 10% increase in population.
*Leisure Index Population Under 3.5K	-0.28	A 2.8% decrease in population density is associated with a 10% decline in the leisure index ranking.
Leisure Index Population 3.5K - 6.5K	-0.14	No statistically significant association.
Leisure Index Population 6.5K - 10K	-0.09	No statistically significant association.
*Leisure Index Population 10K-15K	0.03	A 0.3% increase in population density is associated with a 10% decline in the leisure index ranking.
*Leisure Index Population 15K - 25K	0.15	A 1.5% increase in population density is associated with a 10% decline in the leisure index ranking.
*Leisure Index Population 25K - 50K	0.17	A 1.7% increase in population density is associated with a 10% decline in the leisure index ranking.
*Leisure Index Population Above 50K	0.18	A 1.8% increase in population density is associated with a 10% decline in the leisure index ranking.

* Statistically significant.

ble determinants may offer some clues (see the first table).

Some fixed features of the towns themselves seem to have clear effects. One-quarter of the state's residents live in Fairfield County, and nearly one-third cluster along the coastline, so proximity to New York City and a coastal locale are significant population draws. Controlling for other factors, a 10% decrease in the distance to New York increases a town's population density by 8.1%, and towns that abut Long Island Sound have 23% more residents per square mile than their landlocked neighbors. And the state's network of interstate highways not only helps move residents from place to place, it also stimulates residential development along its path. Towns traversed by an interstate have more than 20% more residents than those that are not.

But public policy may influence state residents' location decisions, too. Residential population varies inversely with a town's minimum lot size. Other things equal, a 10% increase in a town's minimum lot size is associated with a 4.5% decrease in population. Naturally, a housing development subdivided into large properties cannot accommodate as many homes as one divided into smaller parcels, so towns with the largest minimum lot sizes will tend to have the fewest residents.

The pattern points to more exurban sprawl, but Connecticut's cities may have moved up in the population rankings.

But the relationship between population and lot size may also reflect a more complex two-way link. In more populous areas, where many residents vie for limited space, towns may have no choice but to permit smaller lot sizes as a local zoning policy. This so-called endogeneity problem, where the direction of causality runs from the independent variables to the dependent variable and back again, appears with housing prices and crime, too. We might expect expensive homes and high crime rates to depress a town's population total, yet the evidence shows a positive association between the number of residents and both of these explanatory variables. The reason? A larger population produces more competition for housing and bids prices up. And more crime is one of the many urban pathologies associated with higher-density living.

WHERE WE'RE GROWING

We won't know for sure how the population distribution across Connecticut towns is changing until early next decade, when data from the 2010 Census become available. Meanwhile, we have town population estimates for 2005 compiled by Applied Geographic Solutions (AGS), a professional demographic forecasting firm (go to www.cerc.com). Our centerfold (pages 12-13) maps the percentage changes in population by town since the last census, using the AGS figures. The pattern points to a continuing trend of exurban sprawl. But the data also hint that Connecticut's cities, which clustered at the bottom of the list for population growth during the 1990s, may have moved up in the rankings since then.

Casual empiricism suggests that some improvement is at least a possibility. Hartford, determined to capitalize on the new urban boom in evidence elsewhere in the country, has made a concerted effort to attract new residents through upscale housing projects like 55 on the Park and Hartford 21. And downtown redevel-

DETERMINANTS OF TOWN POPULATION CHANGE, 2000-2005

Variable	Coefficient	Explanation
*Percent Population Change 1990-2000	0.0551	A 10% increase in population from 1990 to 2000 is associated with a half-point growth from 2000 to 2005.
*Interstate	-0.0106	Towns with interstates grow 1% more slowly than those without.
*Open Space	0.0033	A one-acre increase in open space per capita increases population growth 0.3%.
*Distance to Boston	-0.0003	A ten mile decrease in distance to Boston increases population growth 0.3%.
*Median Age	-0.0027	A one year increase in median age reduces population growth 0.3%.
*Unemployment Rate	-0.0092	A one-point decrease in the unemployment rate boosts population growth 0.9%.
Leisure Index Population Under 3.5K	-0.0003	No statistically significant association.
Leisure Index Population 3.5K - 6.5K	-0.0003	No statistically significant association.
Leisure Index Population 6.5K - 10K	0.0000	No statistically significant association.
Leisure Index Population 10K-15K	-0.0005	No statistically significant association.
*Leisure Index Population 15K - 25K	-0.0010	A 10 position improvement in the leisure index ranking is associated with a 1.0% increase in population.
*Leisure Index Population 25K - 50K	-0.0010	A 10 position improvement in the leisure index ranking is associated with a 1.0% increase in population.
*Leisure Index Population Above 50K	-0.0017	A 10 position improvement in the leisure index ranking is associated with a 1.7% increase in population.

*Statistically significant.

opment projects, like Adriaen's Landing, are designed to boost the city's appeal to residents and non-residents alike.

What factors explain which towns are growing fastest? To find out, I regressed the percentage changes in town population between 2000 (Census) and 2005 (AGS) against the characteristics most likely to have an effect (see the second table, opposite).

Fast-growing towns since 2000 tend to be those that grew fastest during the 1990s, and those tend to be of the low-density variety. Every ten percentage points of population growth in the 1990s is associated with an extra half point of growth between 2000 and 2005. Towns off the beaten track, without interstates, are estimated to be growing a percentage point faster than those with. What's more, every acre of open space per-capita added about a third of a point to a town's growth rate, and the towns with the most open space are, unsurprisingly, those least densely populated. And being ten miles closer to Boston adds an additional third of a point to a town's growth rate. In Connecticut, the municipalities closest to Beantown are found in a region that, at least for now, is still called the state's "Quiet Corner."

But the model also suggests that cities can potentially manipulate to their advantage at least two powerful population levers: a healthy economy and a rich variety of leisure activities. Between 2000 and 2005, towns with the lowest unemployment rates tended to attract the most new residents. A one-point decrease in the unemployment rate produced a one-point increase in the population growth rate. So cities that can boost the performance of their local economies can, in theory, offset some of the advantage that smaller towns otherwise enjoy.

And cities may also be able to significantly improve their attractiveness by offering residents more leisure possibilities. *Connecticut Magazine* composes an annual ranking of the state's towns, comparing them across several dimensions including leisure and cultural amenities ("local library expenditures per capita, the number of theaters, museums, festivals, concert venues, historic sites, colleges and universities, golf courses, local newspapers, radio stations, state parks and forests, voter turnout… and good local restaurants"). The magazine sorts towns into seven groups—from the busiest cities to the sleepiest burgs—and rates each locality against its peers.

The regression results suggest that, for the small towns, leisure amenities (as measured by *Connecticut Magazine*'s rankings), aren't a significant determinant of population growth, but for the big towns they clearly are. For the 17 most populous towns, a ten-position move up the rankings would add 1.7 percentage points to a town's growth rate. For towns in the next two tiers down, with populations of between 15,000 and 50,000, a move of that magnitude would add a full point to the growth rate.

DENSITY: THE CITIES' SECRET WEAPON?

The opportunity for social interaction that appears to be a significant draw for Connecticut's biggest towns is one of the benefits of urban size that economists have long attributed to large cities. But economists see a more important advantage for cities: urban living makes agglomeration economies possible. Where people and business-

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DETERMINANTS OF AVERAGE EARNINGS ACROSS TOWNS, 2000

Variable	Elasticity	Explanation
*Percent of Population with B.A. or Better	0.27	A 10% increase in the percent with a B.A. is associated with a 2.7% increase in average earnings.
*Median Age	0.34	A 10% increase in median age is associated with a 3.4% increase in average earnings.
*Female Percent of Labor Force	-1.69	A 10% increase in the percent of the labor force female is associated with a 16.9% decrease in earnings.
*Travel Time to Work	0.31	A 10% increase in travel time to work is associated with a 3.1% increase in average earnings.
*Median Rent	0.15	A 10% increase in the median rent is associated with a 1.5% increase in average earnings.
*Unemployment Rate	-0.14	A 10% increase in the share unemployed is associated with a 1.4% decrease in average earnings.
*Percent Manufacturing Jobs	-0.06	A 10% increase in the percent manufacturing jobs is associated with a 0.6% decrease in average earnings.
*Percent FIRE Jobs	0.05	A 10% increase in the percent FIRE jobs is associated with a 0.5% increase in average earnings.
*Population Density	0.04	A 10% increase in population density is associated with a 0.4% increase in average earnings.

*Statistically significant.

es cluster close together, firms can improve efficiency and boost profits by sharing suppliers of lower-cost intermediate inputs, by drawing on a more diversified pool of worker skills, and by absorbing "knowledge spillovers." Described by 19th-century economist Alfred Marshall as "mysteries of the trade" that are "in the air," knowledge spillovers are ideas in the public domain that spring up when people living and working in close proximity share information and expertise.

If, as economic theory maintains, concentrating economic activity in urban settings makes firms and workers more productive, and workers are paid the value of their marginal product, then urban workers should earn a wage premium above that received by comparable non-urban workers. But testing that idea requires controlling for the other reasons that earnings might varying among workers, including, among other things, education and experience.

For the test I regressed average earnings across towns against a series of possible explanatory variables (see the third table, page 9). As expected, education and experience both boost worker earnings. A 10% increase in the share of the population with a B.A. or better adds 2.7% to average earnings; a 10% increase in the median age of the population adds 3.4%.

Other demographic and economic factors are important, too. A 1% increase in the share of female workers in the labor force is associated with a 1.6% decrease in earnings. Workers with longer commutes to work earn more (proxying, perhaps, for a suburb-to-city commute). And as one might anticipate, earnings are higher where needed to compensate for pricey rents, and lower where unemployment is more of a problem. Earnings also depend on an area's industry composition, varying inversely with the share of manufacturing employment and directly with the share of employment in finance, insurance and real estate.

With these other influences on worker earnings held constant, the relationship between average earnings and population density measures the net effect of urbanization on what Nutmeggers make. The regression suggests that a 10% increase in population raises pay by 0.4%, and that a doubling of population lifts earnings more than 4%. Admittedly, the regression doesn't control for some difficult-to-measure, invisible factors that could influence incomes, such as the quality of education or employee motivation. Nevertheless, the connection between urbanization and earnings is consistent with results in the economics literature that find earnings rising by between 3% and 8% as population doubles, and it supports the idea that urban living continues to generate significant agglomeration economies.

WHAT'S IN IT FOR THE CITIES?

Nutmeggers, like Americans everywhere, once flocked to the cities to work, to shop, to eat and to live. But income growth, the ubiquity of the automobile, and the advent of the interstate spawned an urban exodus that, by all signs, continues today. Connecticut's cities may no longer lie at the bottom of the population growth heap, as they did in the 1990s, but they're hardly perched at the top, either.

Some beacons of light still shine through the darkness. Economic performance and recreational offerings are among the most significant factors conditioning Nutmeggers' choices of places to live, according to the analysis of population growth estimates. Thus, policies designed to enlarge the job base, either by attracting new firms to an area or encouraging existing firms to expand could, if implemented successfully, help fuel a bit of an urban renaissance.

So could a renewed focus on making the city environment more livable. Nutmeggers place a premium on having ready access to libraries, theaters, museums, festivals, concerts, and restaurants. Development efforts focused on improving the leisure activities available to existing residents can encourage others to join them.

Most important, town wage data suggest that cities remain viable economic entities. The pay premium enjoyed by urban workers likely reflects the external economies that accompany urban activity—a felicitous by-product of sharing input suppliers, workers and industry knowledge.

Many of these dynamics are self-reinforcing. When a marginal firm moves in to exploit the existing urban economies, it enhances the incentive for others to crowd in. When a marginal worker exchanges a rural route address for a post office box in the city, others are more rather than less likely to follow suit. The hard part is getting things going in the first place, so that the momentum is working in the right direction.

Nobody would suggest that Connecticut's cities hold all the cards. But they at least have a hand worth playing.