The Growth of Small, Cold Cities

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Outline

- Patterns in the 2010 Census – Density, Income, Temperature and Skills
- Cities are not Counties and Small Cities are Not Big Cities
- What Matters for Medium-Size City Growth within the U.S.?
- How Does Massachusetts Differ?
- Policy Questions
Average Population Growth by Distance to Nearest Port (Quintiles)
Growth and Income in CT

The diagram shows the relationship between population growth from 2000 to 2010 and median income in different counties in Connecticut. The x-axis represents median income in 2000, ranging from 50,000 to 80,000, and the y-axis represents population growth, ranging from 0.04 to 0.12. Each county is plotted as a point on the graph, with labels indicating the county name. The counties shown are Windham County, Middlesex County, New London County, New Haven County, Hartford County, and Fairfield County.
Growth and Income in RI

![Graph showing the relationship between population growth and median income in different counties in Rhode Island.](https://www.hks.harvard.edu)
Growth and Income in NH
Innovation in the Industrial Age

Francis Cabot Lowell goes to Manchester and memorizes the structure of power looms—Boston associates establish Lowell and Lawrence.

The “father of American watch-making,” “went to Boston to perfect himself as a journeyman watchmaker ... so that he could get the instruction of Tubal Hone, then the best watchmaker in America.”

Lawrence establishes the Lawrence Scientific School at Harvard; Rogers comes to Boston for the scientific atmosphere and gets the legislature to found M.I.T.
The Decline of the Costs of Moving Goods
Average Population Growth by Average January Temperature (Quintiles)
Temperature and Growth: Large Cities

Population Growth 2000-2010

Jan Temp 2000

Various cities are plotted on a graph showing the relationship between January temperature in 2000 and population growth from 2000 to 2010.
Temperature and Growth: Small Cities

Population Growth 2000-10
College Education and Growth in Larger (over 200k), Colder Cities
College Education and Growth: Colder, Smaller Cities
Chinitz: Contrasts in Agglomeration: New York and Pittsburgh
Average Employment Growth, 1977-2000
by Quintile of Average Firm Size, 1977

Source: County Business Patterns, 1977 and 2000
What Does the Model Teach Us?

Five variables explain about 40 percent of the growth rates in colder (under 40 degrees), smaller (under 200k) cities.

• January Temperature still matters—10 degrees, 5 percentage points more growth.
• Share with HS degrees—10 percentage points is 6.1 percentage points more growth.
• Also,
  • Households with kids (positive),
  • Latin American (positive), and
  • Density (negative).
A Statistical Model of Cold, Small City Growth

Percent Growth 2000-10

Fitted values
Income vs. Population Growth

Population Growth and Income Growth move weakly together (income data is imperfect).

- January Temperature still matters—10 degrees, 1.9 percentage points more growth.
- Share with HS degrees—10 percentage points is 3 percentage points more growth.
- Share with BA degree is slightly more powerful
- Share Latin American is also positive but not strong
- Households with kids doesn’t matter
- Density is weakly negative
HS Graduation and Growth: Smaller, Colder Cities

Population Growth 2000-10

Adults w HS degree 2000
HS Graduation and Growth: Colder, Larger Cities
The Imperfect New England Fit

Population Change 2000-10

Fitted values

www.hks.harvard.edu
The New England Model

Population Change 2000-10

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Four Variables

- Share with HS degree—10 percentage points higher is 1.2 percent more growth.
- Share that is Latin American—ten percentage points higher is 1.8 percent more growth.
- Share that is Asian American—ten percentage points higher is 3.2 percent more growth.
- Density continues to be negative but not in Massachusetts itself.
- Little impact of households with kids or January temperature (in NE).
- Model is different also because the coefficients are different even when they have the same sign—doing well in New England is just different than in Texas.
Why Don’t The Other Variables Matter in Massachusetts?

- In much of America, the lower density cities are growing as part of the ongoing growth of sunbelt sprawl. There is sprawl in MA but not within cities.
- Temperature doesn’t matter that much between Lowell and Worcester.
- But immigration is crucial—cities remain gateways and Boston’s high prices make entry more difficult.
Distribution of Single-Family Minimum Lot Sizes, Greater Boston Area, 2000

Lot Sizes (1,000s of ft²)

Percentage of Regional Total

- <10
- 10–20
- 20–30
- 30–40
- 40–50
- 50–60
- 60–70
- 70+

Legend:
- Towns
- Population
- Land
Policies for Healthy Small Cities

- Skills
- Entrepreneurship
- Attracting people—often immigrants—who have a healthy demand for urban options.
- Quality of Life is an Economic Development Policy
- Housing policy matters.
- Smokestacks or currently hot industrial options (green jobs) typically are failures.