

# Discussion Paper



## New England migration trends

by David Agrawal

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## NEPPC Discussion Paper 06-1

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Recent studies and reports have called attention to the issue of population migration patterns in New England. To provide more targeted and regional data on this issue, NEPPC has developed a series of findings and maps that, for the first time, present a comprehensive, county-by-county portrait of New England population movements. The maps were constructed using data from the Internal Revenue Service, which annually tracks changes in the number of tax exemptions at the county level.

Though the data cover only the relatively narrow time frame of 2003 to 2004, the picture that emerges fits into a broader trend: on net, more people are moving from New England to other parts of the United States than are moving into the region. New England experienced a net population gain from four states: New York, New Jersey, Illinois, and Michigan. But overall, the region saw net out-migration of 57,000 individuals to other parts of the country, particularly the South Atlantic and Southwest, during this period. People are also redistributing themselves within the region. New England's northern states gained population from elsewhere in the region, mostly Massachusetts and Connecticut. Meanwhile, Southern New England experienced net out-migration in two forms: to other states in the region and to other parts of the country.

While these shifts raise important policy concerns, they are by no means new phenomena. New England's population has long grown more slowly than the national average, due in equal measure to out-migration and a slower rate of natural increase. Over the last half-century and continuing today, New England's population has grown by an average of 0.8 percent per year, versus 1.3 percent for the U.S. as a whole. Further, the magnitude of the net losses to other areas is not large. New England's 57,000 net out-migrants between 2003 and 2004 represent less than half a percent of the region's total population.

The 15 maps that follow are divided into two categories. Maps 1 to 7 analyze population movements for New England as a whole, showing which individual counties are losing population to or gaining population from other counties in the same state, other New England states, other states outside the region, or other nations. Maps 8 to 15 analyze population movements into and out of specific New England counties, chosen because they contain major population centers. We also include tables showing population growth rates and components of population change for the U.S. and New England.

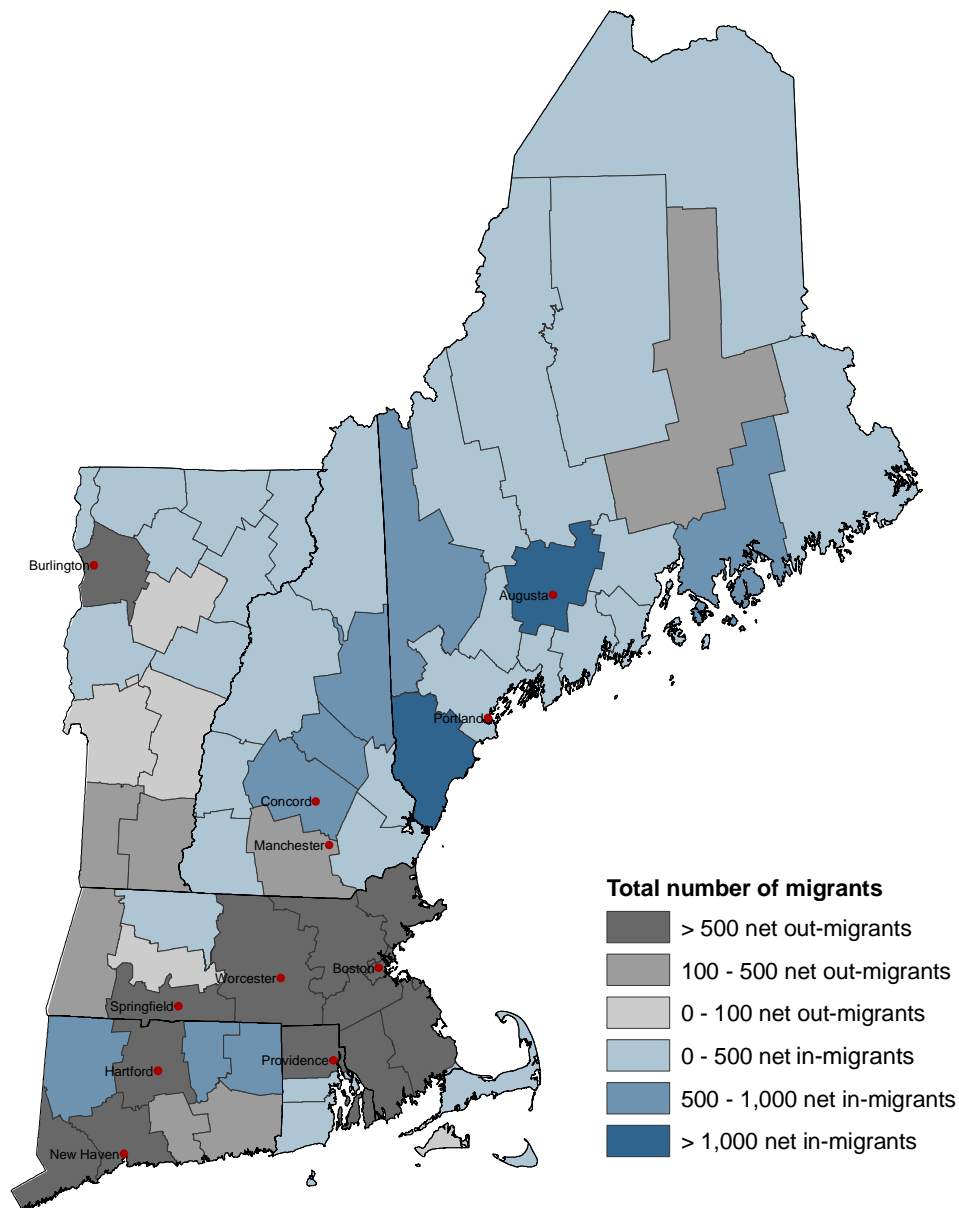
All maps cover movements in tax exemptions between 2003 and 2004, based on data from the Internal Revenue Service's *2003-2004 County-to-County Migration Flows*. Each includes a summary of key findings. For further information on the data and methodology, see the appendix on page 18.

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David Agrawal was an intern at the New England Public Policy Center during summer 2006. The views expressed in this discussion paper are those of the author and do not necessarily represent positions of the Federal Reserve Bank of Boston or the Federal Reserve System.

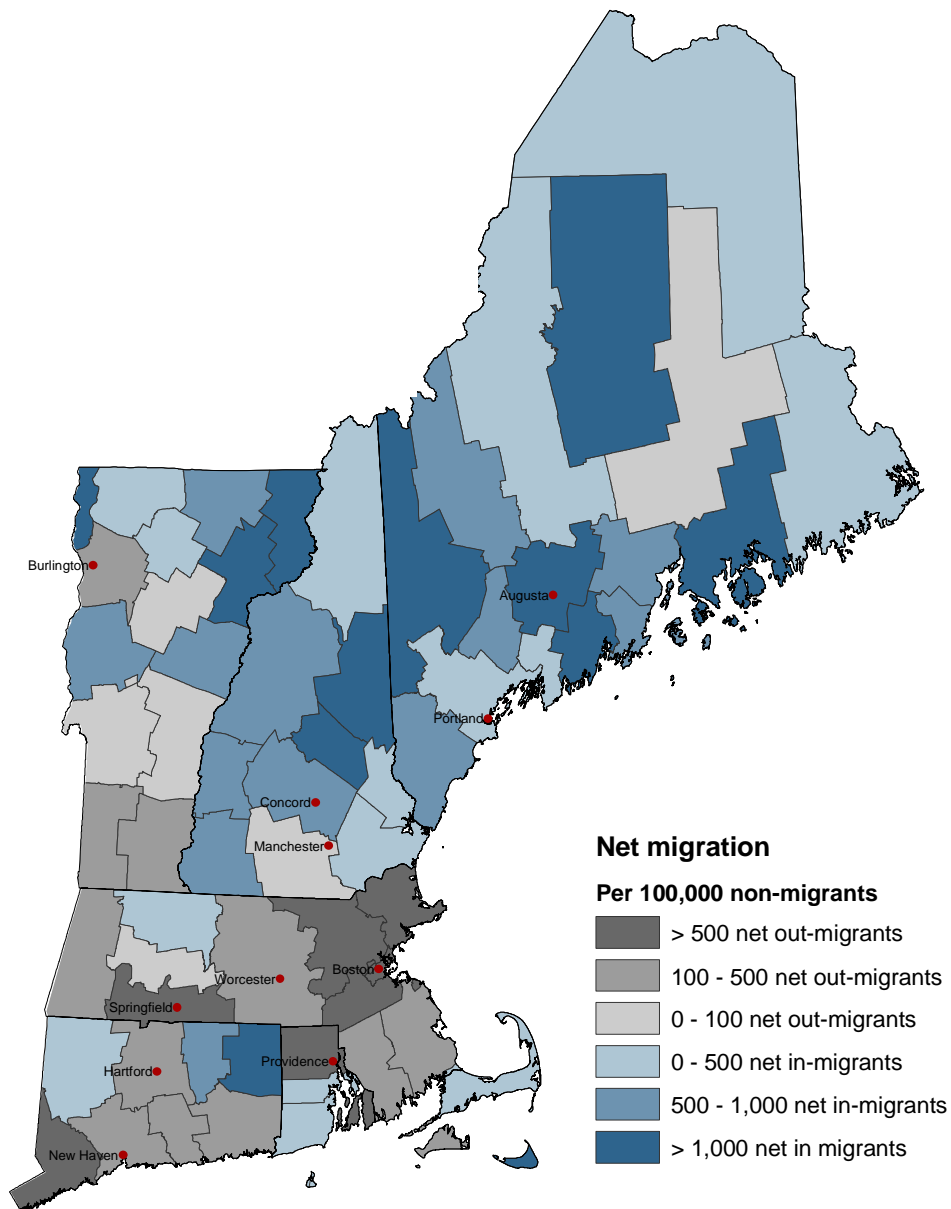
## Map 1: New England's net migration by county

- Most counties in Massachusetts, southern Connecticut, and southern Vermont experienced net out-migration to other counties, states, or countries in 2004.
- Most Maine and New Hampshire counties gained population during this period; only two counties in these two states saw more people move out than move in.
- Urban counties and southern New England experienced the greatest losses, while rural counties, northern New England, and northeastern Connecticut had the greatest gains.



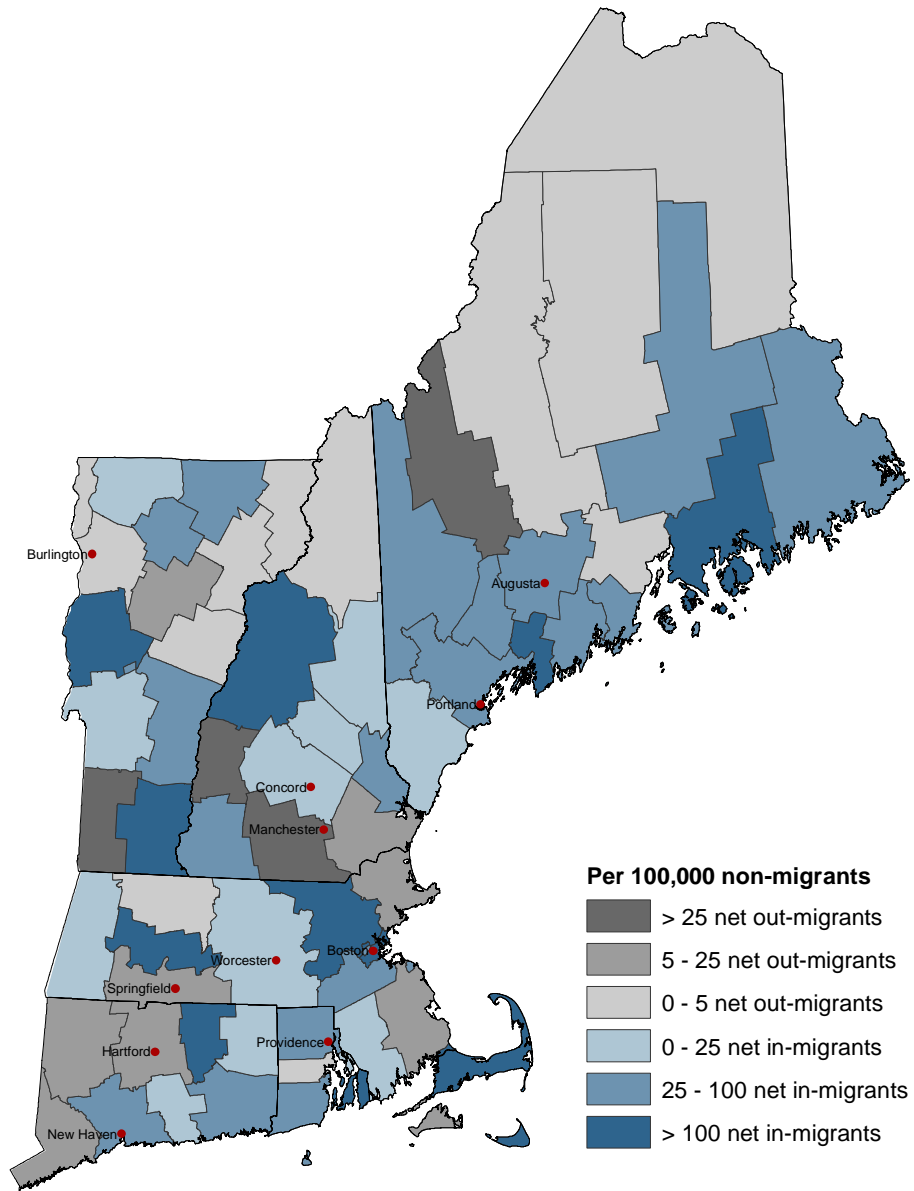
## Map 2: Net migration per 100,000 non-migrants

- On net, most counties in Massachusetts, southern Connecticut, and southern Vermont experienced net out-migration, while all but two counties in Maine and New Hampshire gained net population from in-migrants.
- The greatest relative population losses occurred in Providence County, RI; Hampden County (Springfield), MA; , Fairfield County, CT; and the counties near Boston.
- This map includes data on migration from all sources. Each of the sources of migrants are also shown separately for each county in Maps 3, 4, 5, and 6.



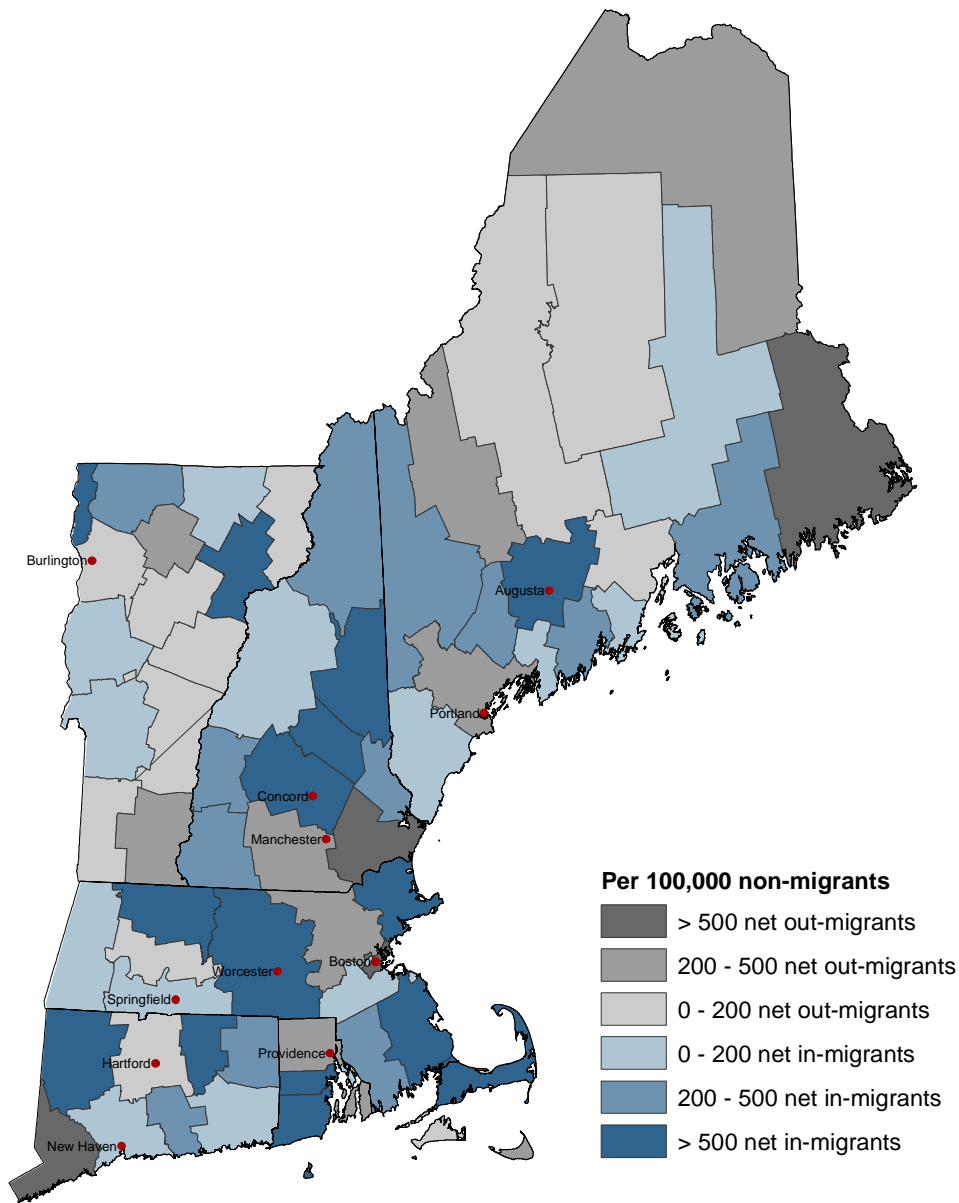
### Map 3: Net international migration

- International migration patterns vary across New England counties.
- The Providence, Portland, and Boston areas gained residents from international sources, while the Hartford, Springfield, and Manchester areas saw net out-migration to foreign nations in 2004.



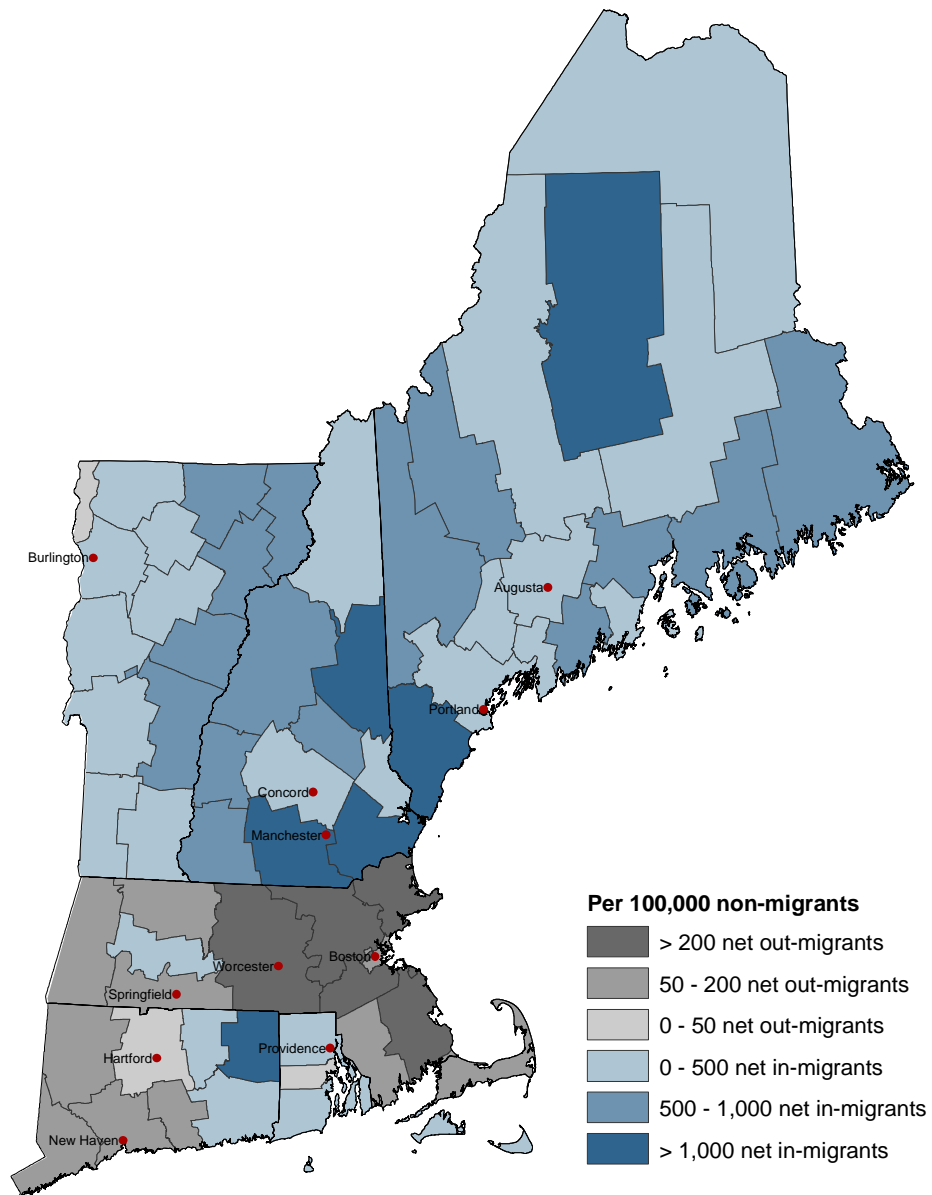
### Map 4: Net migration within the same state

- In Maine, rural counties lost population to coastal counties.
- In Connecticut, Fairfield and Hartford counties saw net out-migration to other parts of the state.
- In Massachusetts, Suffolk, Middlesex, and Hampshire counties lost population to the rest of the Commonwealth.



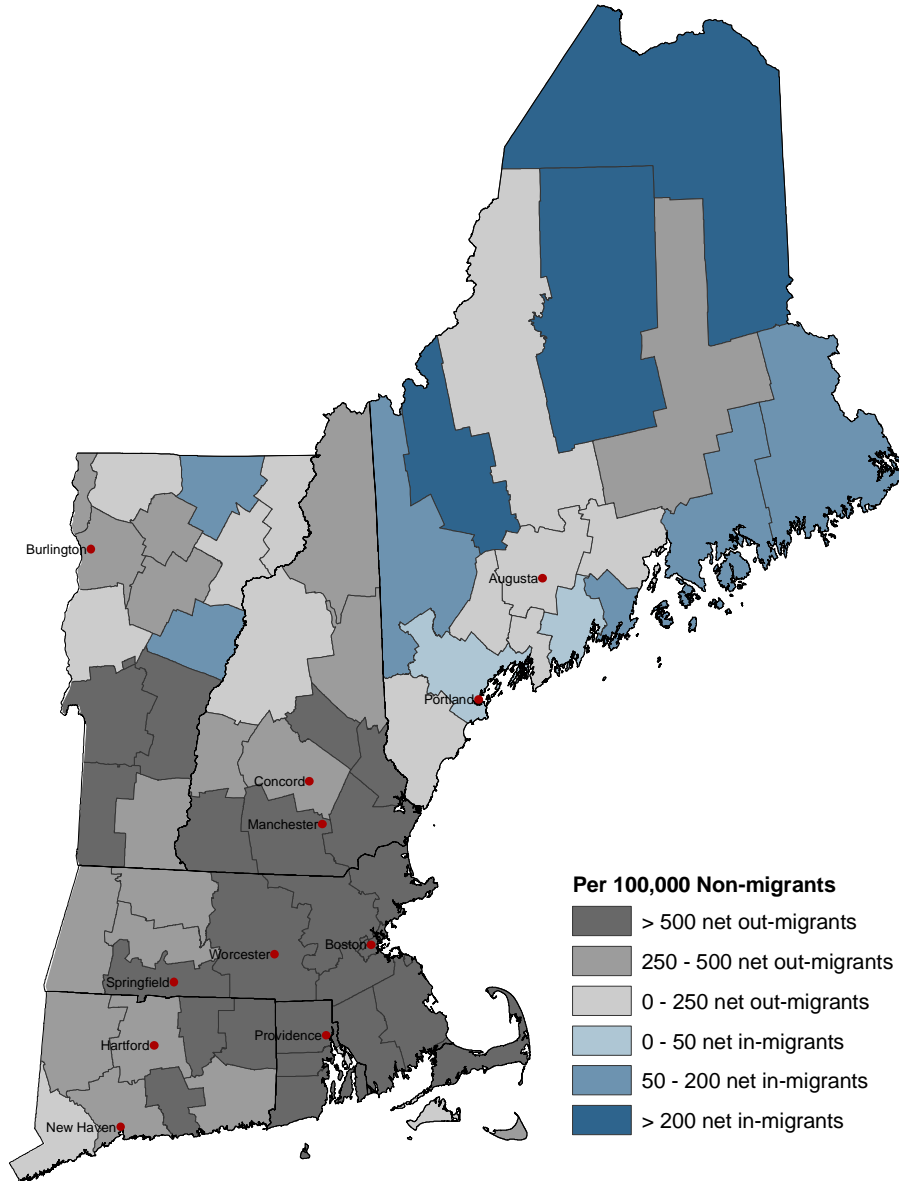
## Map 5: Net migration within the rest of New England

- Every county in northern New England except one, along with eastern Connecticut and most of Rhode Island, gained population from other parts of the region.
- Most Massachusetts counties and western Connecticut saw net out-migration to other parts of the region.
- The greatest gainers are non-Massachusetts counties close to the Boston metropolitan area and counties along the Maine coast and northern New England's I-91 corridor.



## Map 6: Net migration outside New England

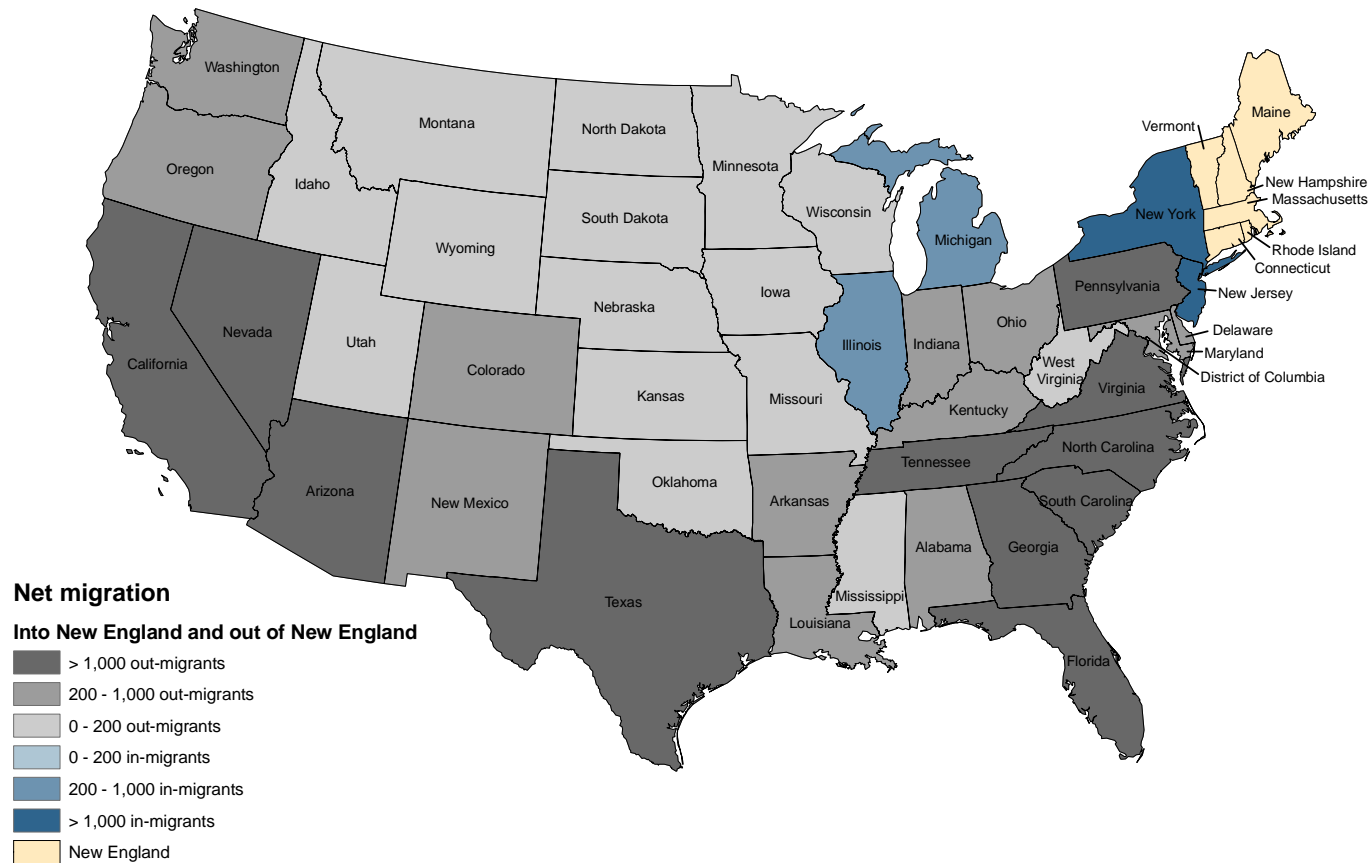
- Except for nine counties in Maine and two in Vermont, every county in New England saw net out-migration to the rest of the nation.
- Eastern Massachusetts, Rhode Island, eastern Connecticut, and counties in southern New Hampshire lost more residents, on net, than other parts of the region.





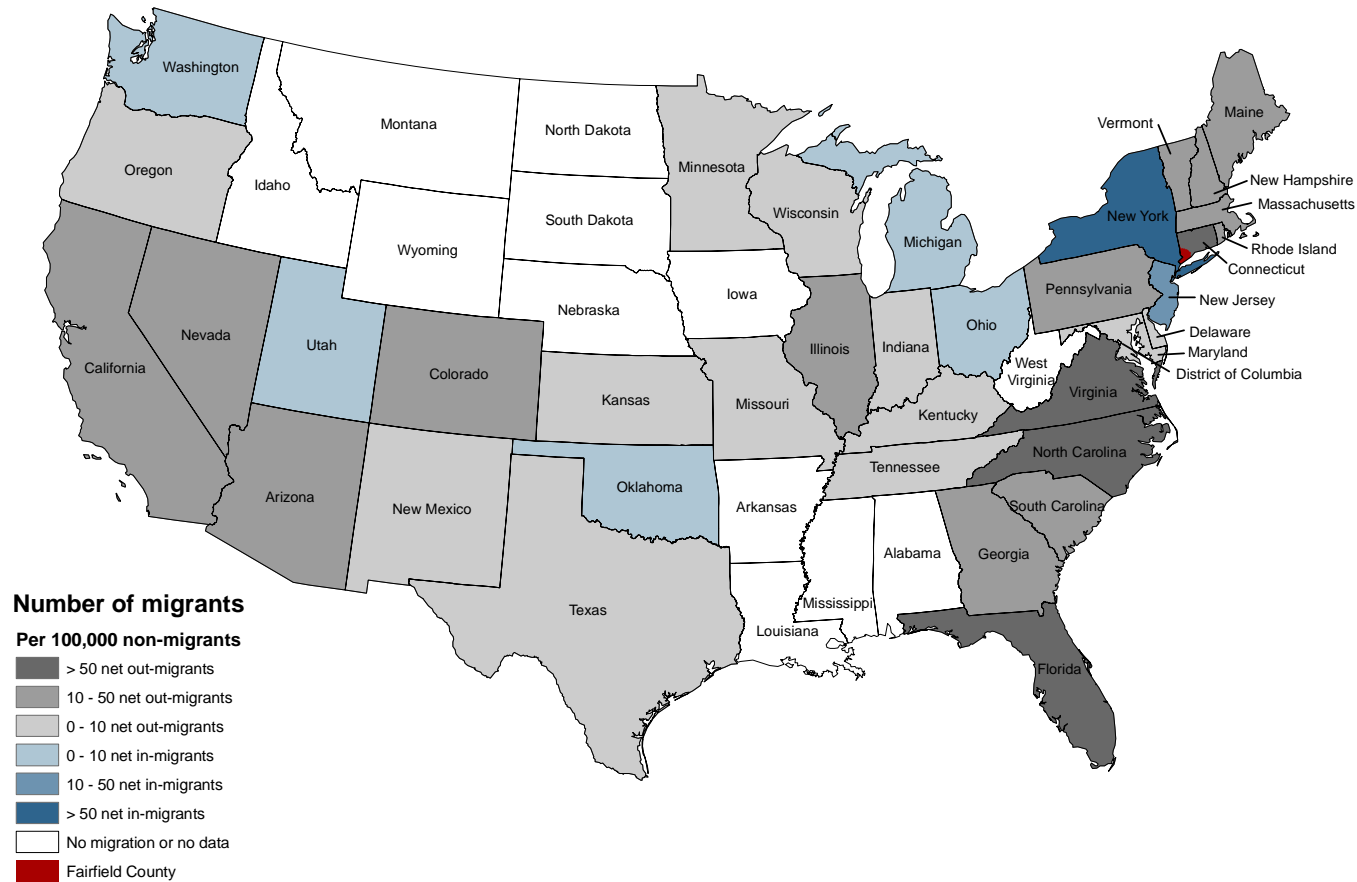
## Map 7: Migration between New England and other states

- Florida attracts the largest number of New Englanders.
- The South Atlantic and Southwest regions gained the most people from New England. Smaller numbers of people left New England for the Plains, Midwest, and Rocky Mountain regions.
- Excluding population gains from international migration, New England gained residents only from New York, New Jersey, Illinois, and Michigan in 2004.



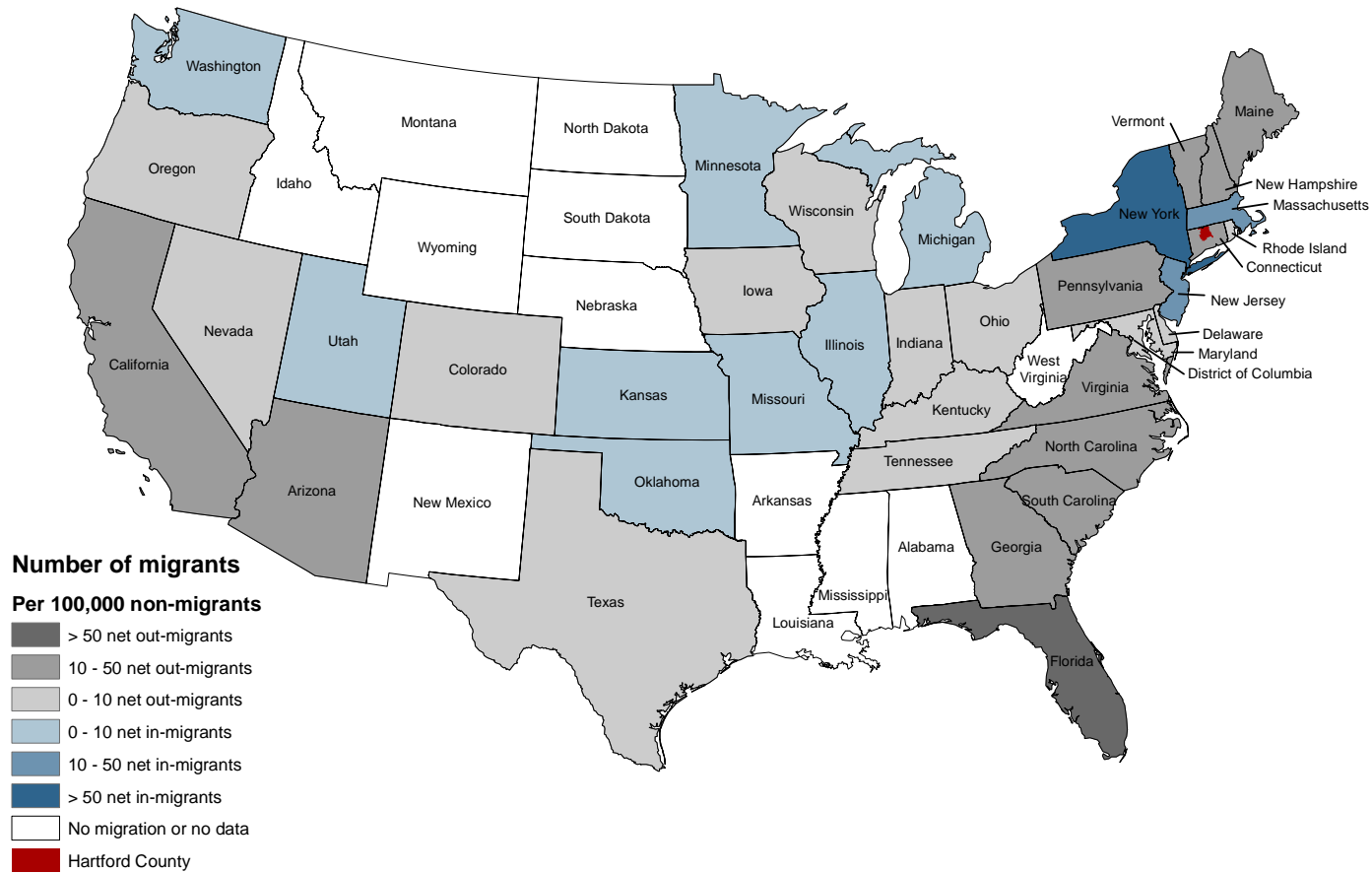
### Map 8: Net migration patterns for Fairfield County, CT

- Fairfield County experienced a net out-migration of about 7,000 people, mostly to other Connecticut counties and to other states in New England, the Southwest, and the South Atlantic.
- People moving into Fairfield County came mostly from neighboring New York state and New Jersey.



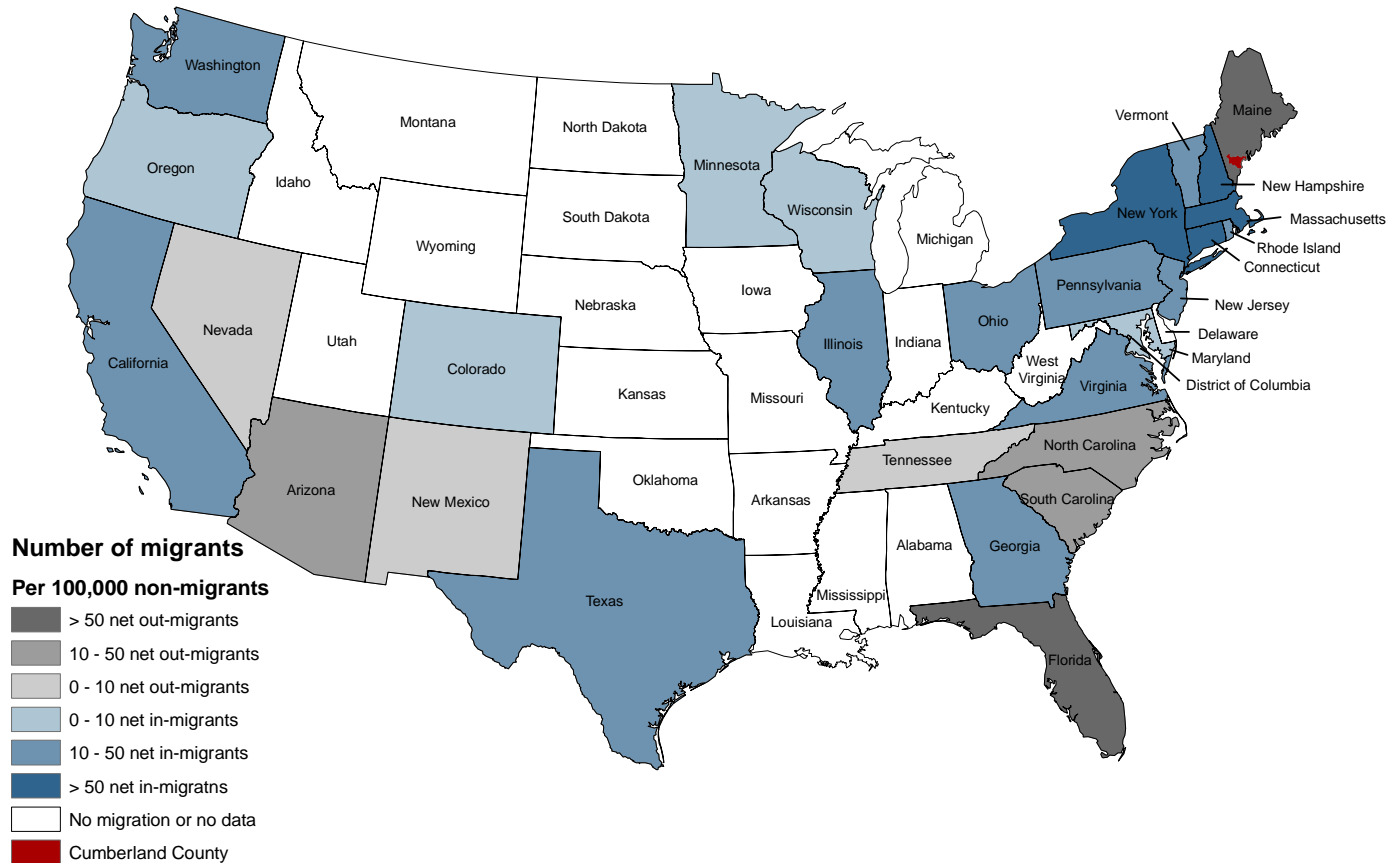
## Map 9: Net migration patterns for Hartford County, CT

- <sup>WVE</sup> Hartford County saw net out-migration of about 3,200 residents. People leaving Hartford moved to every New England state except Massachusetts, as well as to states in the Southeast, Southwest, and West Coast, particularly Florida.
- New York and New Jersey were the leading sources of people coming into Hartford County; additional migrants came from the Midwest.



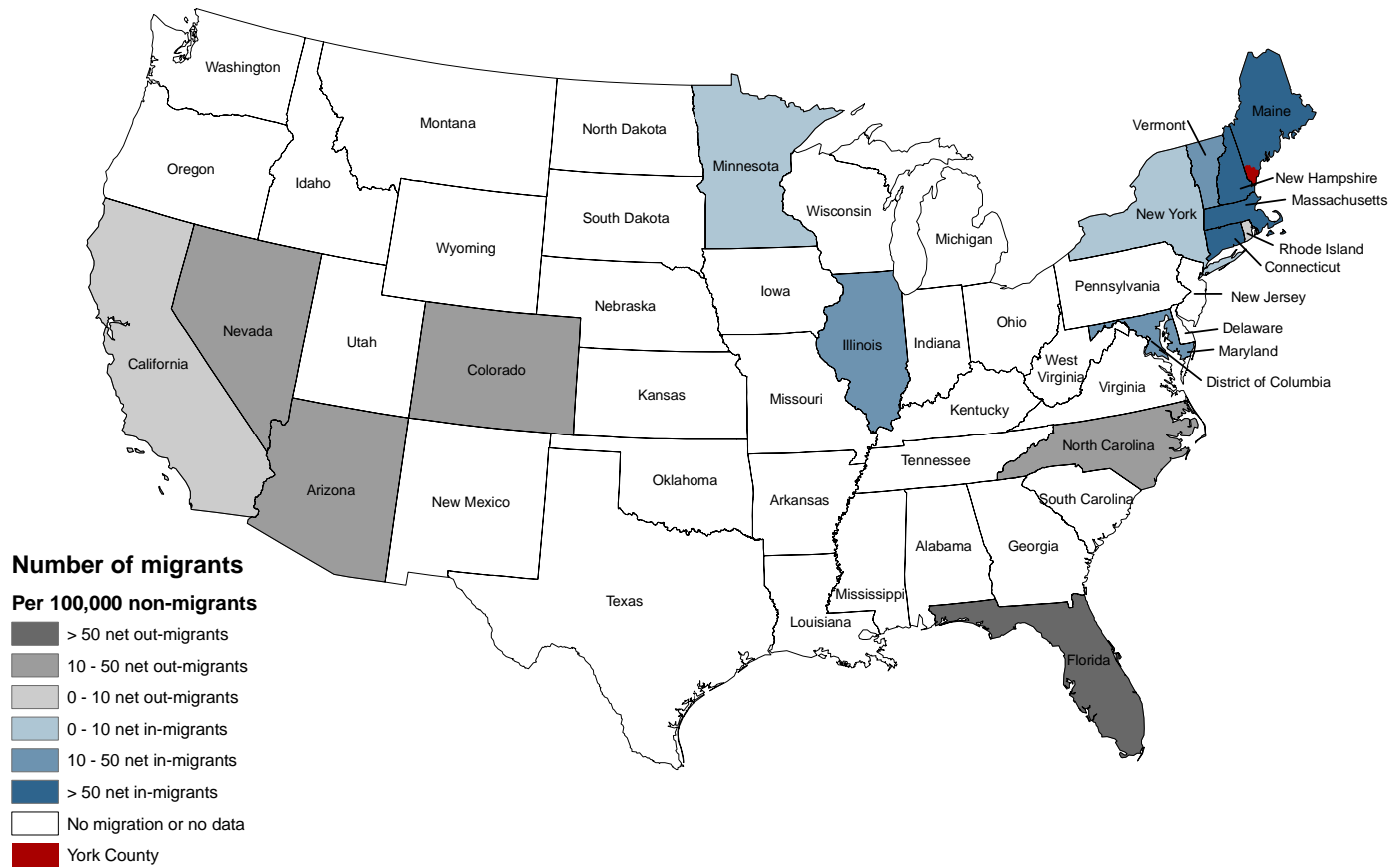
## Map 10: Net migration patterns for Cumberland County, ME

- In Cumberland County—the most populous county in Maine and the home county to Portland—in-migration basically equaled out-migration during this period, with a net gain of 50 residents.
- New residents came from many areas, especially New England states and New York. While most New England counties lost net population to the West Coast, Georgia, and Virginia, Cumberland County gained from those areas.
- These net population gains from other states were basically offset by population losses to other counties in Maine, as well as to Florida, the Carolinas, Arizona, and other states.



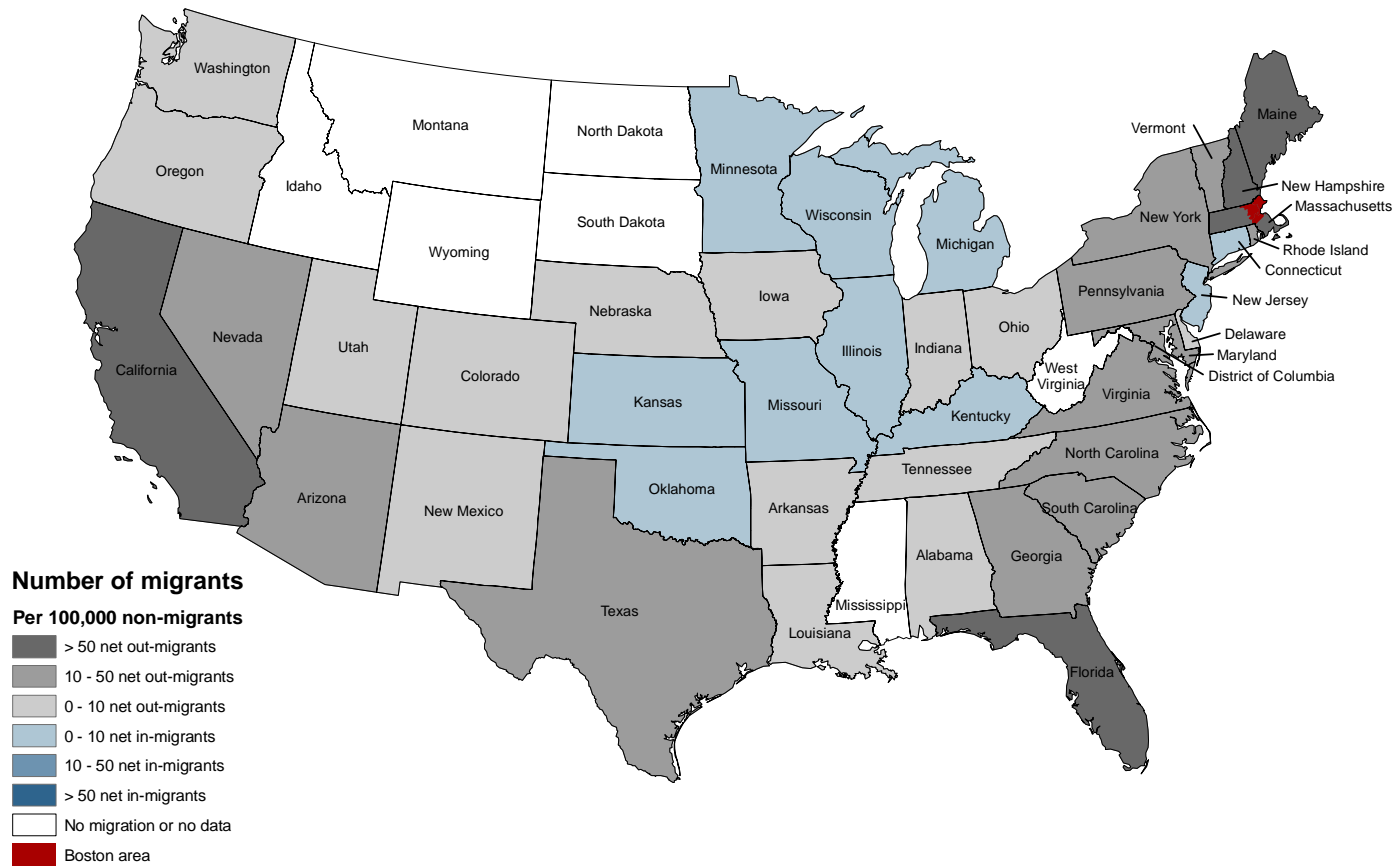
### Map 11: Net migration patterns for York County, ME

- York County, the Maine county closest to Boston, had the largest net in-flows of population of any county in New England, at more than 1,300 new residents. This positive flow came mainly from other New England states, Maryland, Illinois, New York, and Minnesota.
- York County saw its largest net out-migration to Florida and the Southwest.



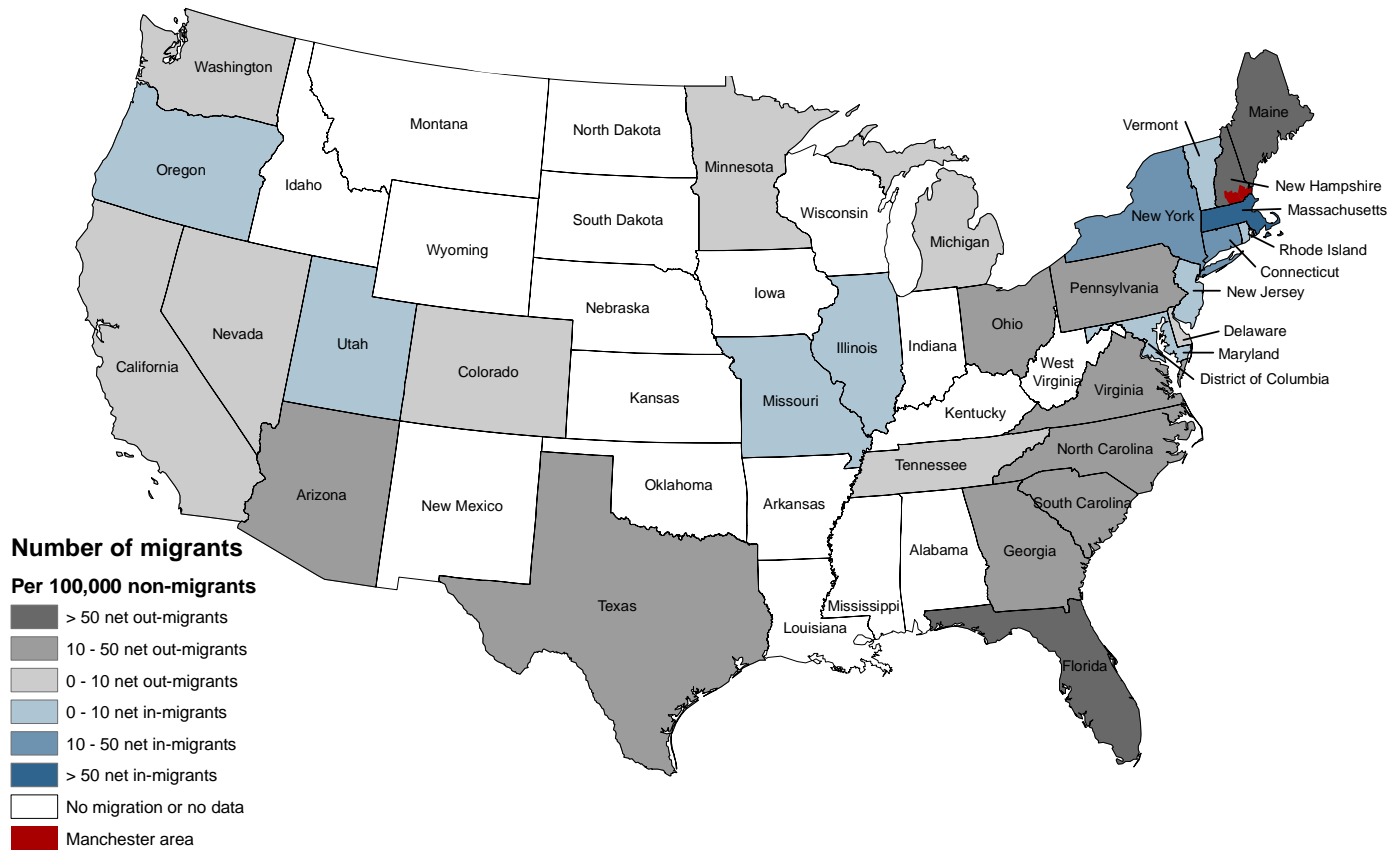
## Map 12: Net migration patterns for Essex, Middlesex, Norfolk, and Suffolk Counties, MA

- Together, these four metropolitan Boston counties experienced net out-migration of more than 43,000 people. Net out-migration from these counties was greatest to the rest of Massachusetts, northern New England, Florida, and California, though out-migrants also moved to the West Coast, the Southwest, and much of the East Coast.
- The four counties gained population from Connecticut and New Jersey as well as a cluster of mainly Midwestern states.



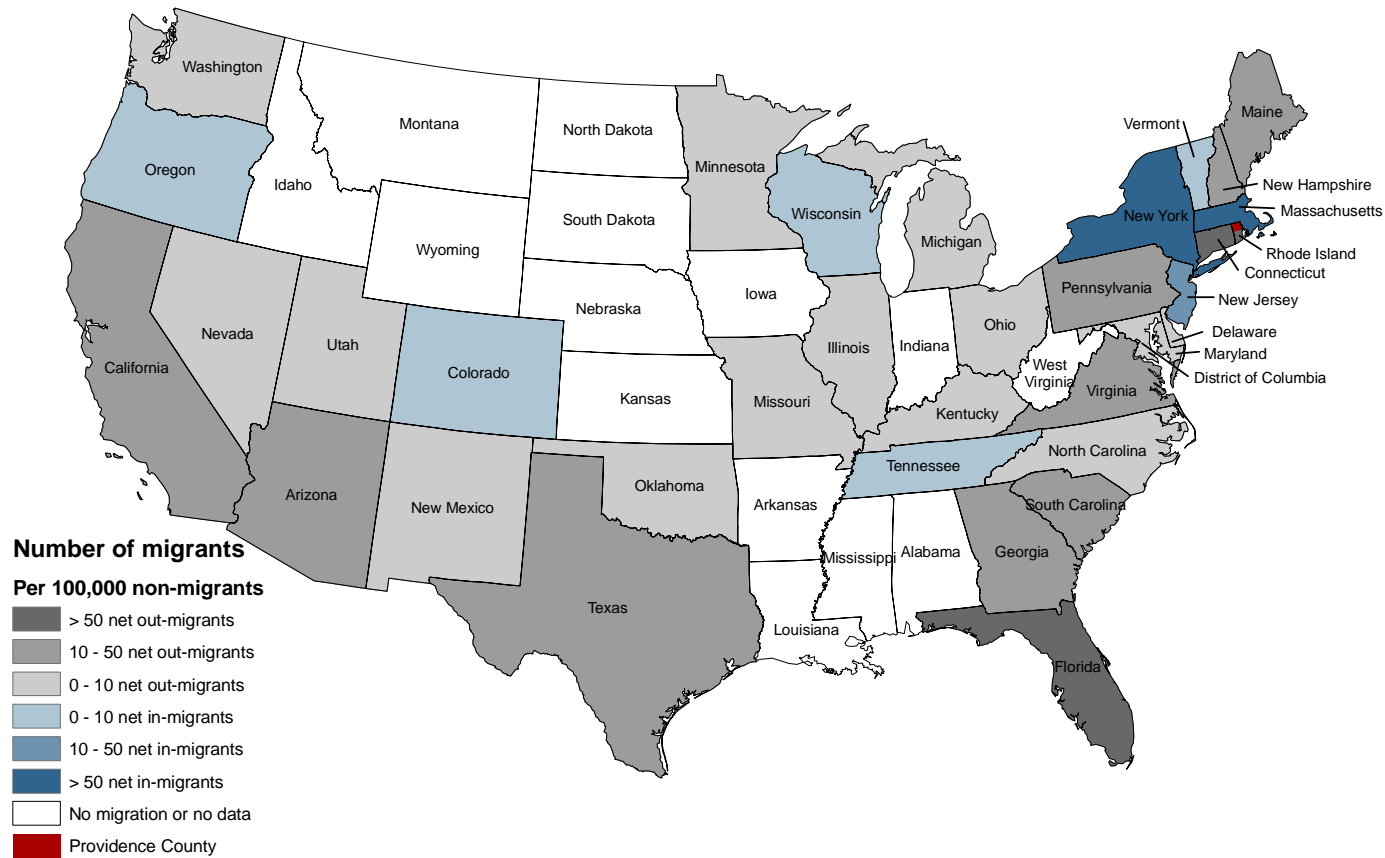
### Map 13: Net migration patterns for Hillsborough and Rockingham Counties, NH

- Despite significant population gains from Massachusetts and New York, overall net in-migration basically equals net out-migration in these two counties, with a net loss of 7 residents.
- The two counties lost residents, on net, to other New Hampshire counties, Maine, Florida, and the South Atlantic.



**Map 14: Net migration patterns for Providence County, RI**

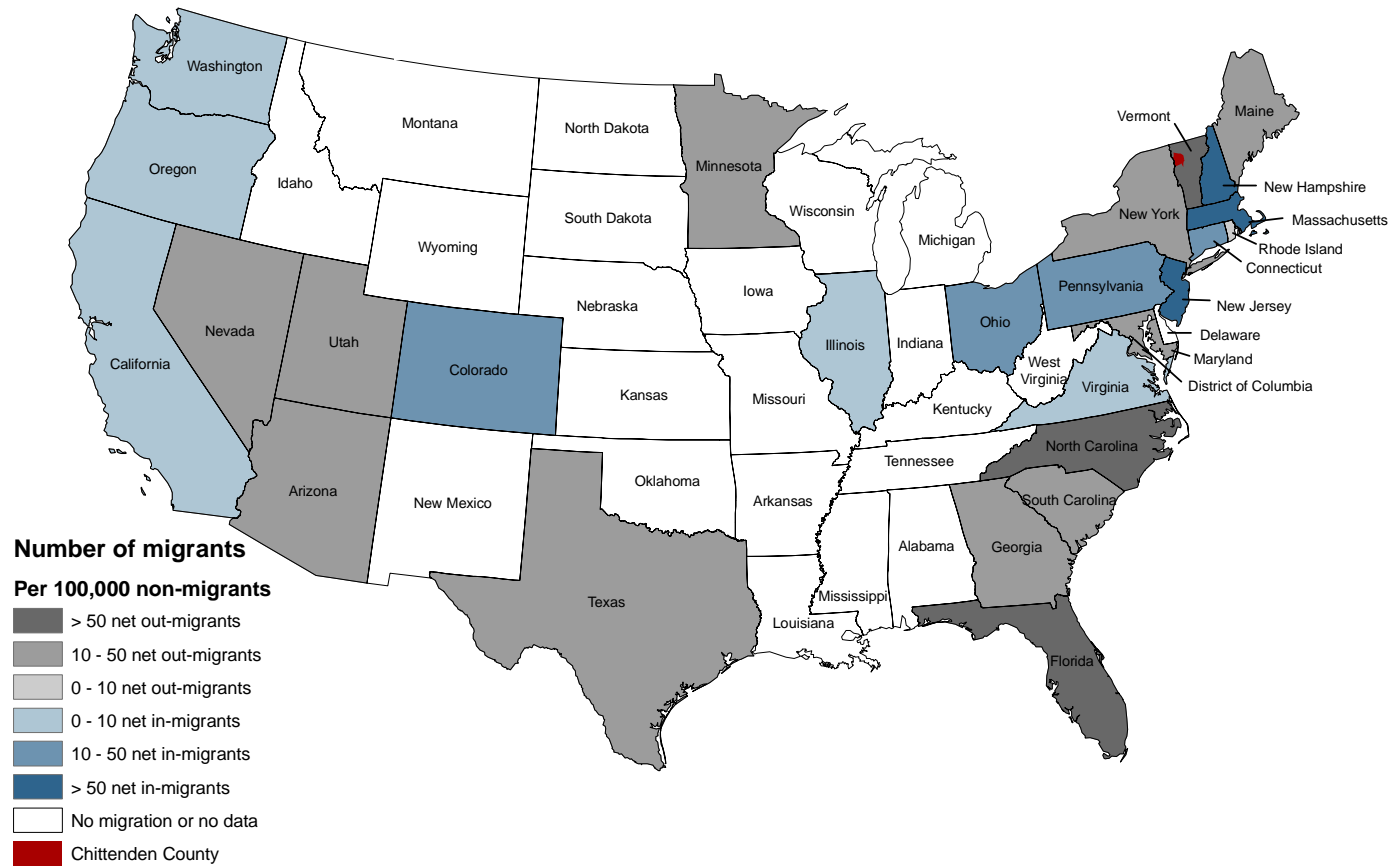
- Providence County saw net out-migration of about 3,800 residents. These out-migrants moved to other counties in Rhode Island, as well as to Florida and other states in the South Atlantic and Southwest.
- Most of the county’s net in-migration came from New York, Massachusetts, and New Jersey.





## Map 15: Net migration patterns for Chittenden County, VT

- On net, Chittenden County (containing Burlington) saw net out-migration of 575 residents. Nearly half of its out-migrants moved elsewhere in Vermont, with the South Atlantic, Southwest, and Minnesota also gaining from the county.
- Chittenden County gained net migrants from Massachusetts, New Hampshire, and Connecticut, as well from the West Coast, Colorado, Ohio, Pennsylvania, and other states.



**Table 1: Historic population growth patterns  
U.S., New England, and the New England states**

Percent increase in population

	1950–1960	1960–1970	1970–1980	1980–1990	1990–2000	Annual rate 1950–2000
Connecticut	26.3	19.6	2.5	5.8	3.6	1.1
Maine	6.1	2.3	13.4	9.2	3.8	0.7
Massachusetts	9.8	10.5	0.8	4.9	5.5	0.6
New Hampshire	13.8	21.6	24.8	20.5	11.4	1.7
Rhode Island	8.5	10.1	0.1	5.9	4.5	0.6
Vermont	3.2	14.0	15.1	10.0	8.2	1.0
New England	12.8	12.7	4.3	7.0	5.4	0.8
U.S.	19.0	13.3	11.5	9.8	13.2	1.3

Source: U.S. Census Bureau, *Demographic Trends in the Twentieth Century*, 2002.

**Table 2: Components of population growth changes  
U.S., New England, and the New England states**

Change in population, April 1, 2000 to July 1, 2005

	Total change in population	Natural increases			Net migration		
		Total	Births	Deaths	Total	Net inter- national migration	Net domestic migration
Connecticut	104,695	67,427	222,222	154,795	41,718	75,991	-34,273
Maine	46,582	6,413	71,276	64,863	41,808	5,004	36,804
Massachusetts	49,638	131,329	426,232	294,903	-73,741	162,674	-236,415
New Hampshire	74,154	23,872	75,060	51,188	51,968	11,107	40,861
Rhode Island	27,870	15,220	66,973	51,753	14,001	18,965	-4,964
Vermont	14,223	7,148	33,606	26,458	7,889	4,359	3,530
New England	317,162	251,409	895,369	643,960	83,643	278,100	-194,457
U.S.	14,985,802	8,651,861	21,329,804	12,677,943	6,333,941	6,333,941	n/a

Source: U.S. Census Bureau, “Cumulative Estimates of the Components of Population Change for the United States and States: April 1, 2000 to July 1, 2005,” Table 4. 2005.

## Data and methodology notes for the maps

### Data

All the maps are based on data from Internal Revenue Service tax exemption filings. They show movements of exemptions between tax year 2003 and tax year 2004.

The number of tax exemptions counted by the IRS is about 20 percent lower than the Census population estimates for each state. This may influence population migration statistics, for several reasons. For one, transient residents such as college students may not claim an exemption in the state to which they move, so they would appear not to have moved when they in fact had. Second, lower-income people are less likely to earn enough money to have to file a tax return, so they would be undercounted in data based on tax filings. In addition, to protect confidentiality, the data do not specifically identify counties with fewer than 10 movers into or out of the jurisdiction. Not counting these counties may result in some states appearing to have no in- or out-migration when in fact they do.

It is possible that some counties or states may have more biased estimates than others, depending on their relative shares of undercounted groups. For instance, Massachusetts's large student population may result in artificially low estimates of its net in-migration, which would make it appear that more people were moving out of Massachusetts on net than actually did so. We expect, however, that the impact of this bias on our results is likely to be small.

### Methodology

The term “net migration” refers to the total number of in-migrants minus the total number of out-migrants for a given county. While in-flows and out-flows are important, using net migration allow us to observe the overall gain or loss in population due to migration.

All the maps except Map 1 are standardized so that they depict the number of migrants per 100,000 non-migrants for the county. Standardizing accounts for the fact that more populous counties would be expected to have more people moving in or out, simply because they contain more people to begin with. Dividing through by the number of non-migrants for the county allows for better comparisons across counties with different population sizes.

The ability to make relative comparisons, however, comes at the cost of not showing the actual number of migrants—and the actual number can also be important for understanding the significance and context of the results. For example, many small counties in Maine have only a small number of net migrants, but because their populations are so low, the new migrants may have a greater impact on the community and economy than a larger number of migrants moving into a metropolitan area.