

UMass Donahue Institute Summary of The U.S. Census Bureau's 2014 State-Level Population Estimates

On December 23, 2014, the U.S. Census Bureau released population and components of change estimates for the nation, states, and Puerto Rico for July 1, 2014. According to the new release, the Massachusetts population increased by an estimated 36,534 persons from July 1, 2013 to July 1, 2014 to a new total of 6,745,408, maintaining its rank as the 14th most populous state in the U.S. This 0.54% annual increase puts Massachusetts' growth at over twice that of the Northeast average of 0.22%, and ranks it as the fastest growing state in the Northeast region for the fourth consecutive year since 2010. At the national level, Massachusetts ranked 26th for annual percentage growth, and in terms of numerical growth, Massachusetts ranked 17th in the 2013-2014 period. Since the last Census in April of 2010, the Massachusetts population has increased by 197,015 persons cumulatively, or 3.0%, compared to a 1.5% cumulative increase for the Northeast Region and a 3.3% cumulative increase for the U.S. as a whole.

Table 1 below shows numerical growth and rankings for the United States, U.S. regions, and the Northeast states including Massachusetts for the period April 1, 2010 through July 1, 2013. Table 2 shows this information in terms of percentage change. To see data for all U.S. states and Puerto Rico, link to the Census Bureau website at: <http://www.census.gov/popest/estimates.html>

Geographic Area	April 1, 2010 Estimates Base	Population Estimate (as of July 1)					Single Year Population Change 2013- 2014	Cumulative Population change April 1, 2010 to July 1, 2014	National Ranking By Population Size 2014	National Ranking by Numeric Population Change 2013- 2014
		2010	2011	2012	2013	2014				
United States	308,758,105	309,347,057	311,721,632	314,112,078	316,497,531	318,857,056	2,359,525	10,098,951	X	X
Northeast	55,318,348	55,381,690	55,635,670	55,832,038	56,028,220	56,152,333	124,113	833,985	4	4
Midwest	66,929,898	66,972,390	67,149,657	67,331,458	67,567,871	67,745,108	177,237	815,210	3	3
South	114,562,951	114,871,231	116,089,908	117,346,322	118,522,802	119,771,934	1,249,132	5,208,983	1	1
West	71,946,908	72,121,746	72,846,397	73,602,260	74,378,638	75,187,681	809,043	3,240,773	2	2
Connecticut	3,574,096	3,579,345	3,590,537	3,594,362	3,599,341	3,596,677	(2,664)	22,581	29	49
Maine	1,328,361	1,327,361	1,327,930	1,328,592	1,328,702	1,330,089	1,387	1,728	41	44
Massachusetts	6,547,817	6,564,073	6,612,270	6,655,829	6,708,874	6,745,408	36,534	197,591	14	17
New Hampshire	1,316,466	1,316,517	1,318,109	1,321,297	1,322,616	1,326,813	4,197	10,347	42	41
New Jersey	8,791,936	8,803,580	8,842,614	8,876,000	8,911,502	8,938,175	26,673	146,239	11	19
New York	19,378,112	19,400,867	19,521,745	19,607,140	19,695,680	19,746,227	50,547	368,115	4	12
Pennsylvania	12,702,884	12,711,077	12,743,995	12,770,043	12,781,296	12,787,209	5,913	84,325	6	40
Rhode Island	1,052,931	1,053,078	1,052,020	1,052,637	1,053,354	1,055,173	1,819	2,242	43	43
Vermont	625,745	625,792	626,450	626,138	626,855	626,562	(293)	817	50	46

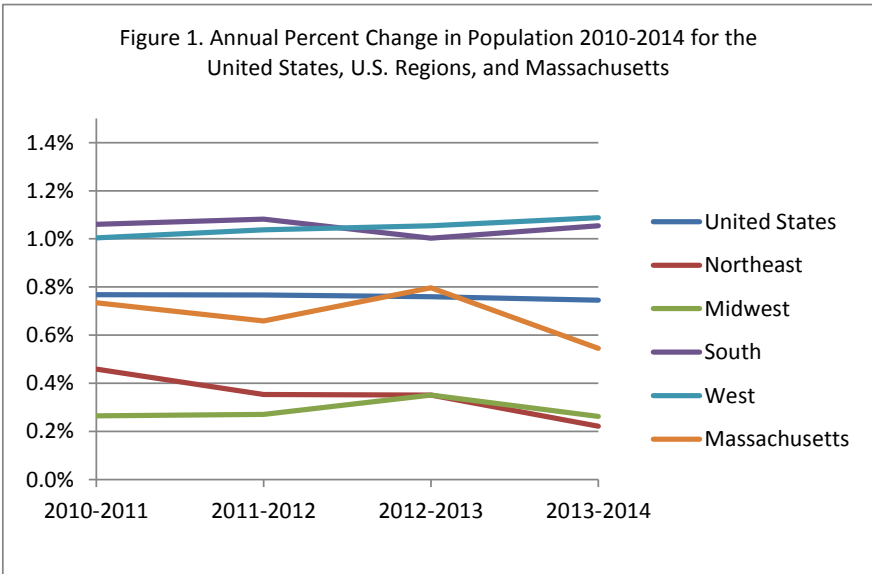
UMass Donahue Institute. Source data: U.S. Census Bureau. Table NST-EST2014-popchg2010_2014. Release date: December 23, 2014.

Geographic Area	Percent Change in Population					National Ranking of Single Year % Change 2013-2014	Cumulative % Change, April 1, 2010 - July 1, 2014	National Ranking of Cumulative % Change
	April 1, 2010 to July 1, 2010	July 1 to July 1						
		2010-2011	2011-2012	2012-2013	2013-2014			
United States	0.2%	0.8%	0.8%	0.8%	0.7%	X	3.3%	X
Northeast	0.1%	0.5%	0.4%	0.4%	0.2%	4	1.5%	3
Midwest	0.1%	0.3%	0.3%	0.4%	0.3%	3	1.2%	4
South	0.3%	1.1%	1.1%	1.0%	1.1%	2	4.5%	1
West	0.2%	1.0%	1.0%	1.1%	1.1%	1	4.5%	2
Connecticut	0.1%	0.3%	0.1%	0.1%	-0.1%	49	0.6%	44
Maine	-0.1%	0.0%	0.0%	0.0%	0.1%	43	0.1%	50
Massachusetts	0.2%	0.7%	0.7%	0.8%	0.5%	26	3.0%	27
New Hampshire	0.0%	0.1%	0.2%	0.1%	0.3%	31	0.8%	42
New Jersey	0.1%	0.4%	0.4%	0.4%	0.3%	34	1.7%	36
New York	0.1%	0.6%	0.4%	0.5%	0.3%	37	1.9%	31
Pennsylvania	0.1%	0.3%	0.2%	0.1%	0.0%	45	0.7%	43
Rhode Island	0.0%	-0.1%	0.1%	0.1%	0.2%	40	0.2%	48
Vermont	0.0%	0.1%	0.0%	0.1%	0.0%	46	0.1%	49

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Regional Comparisons

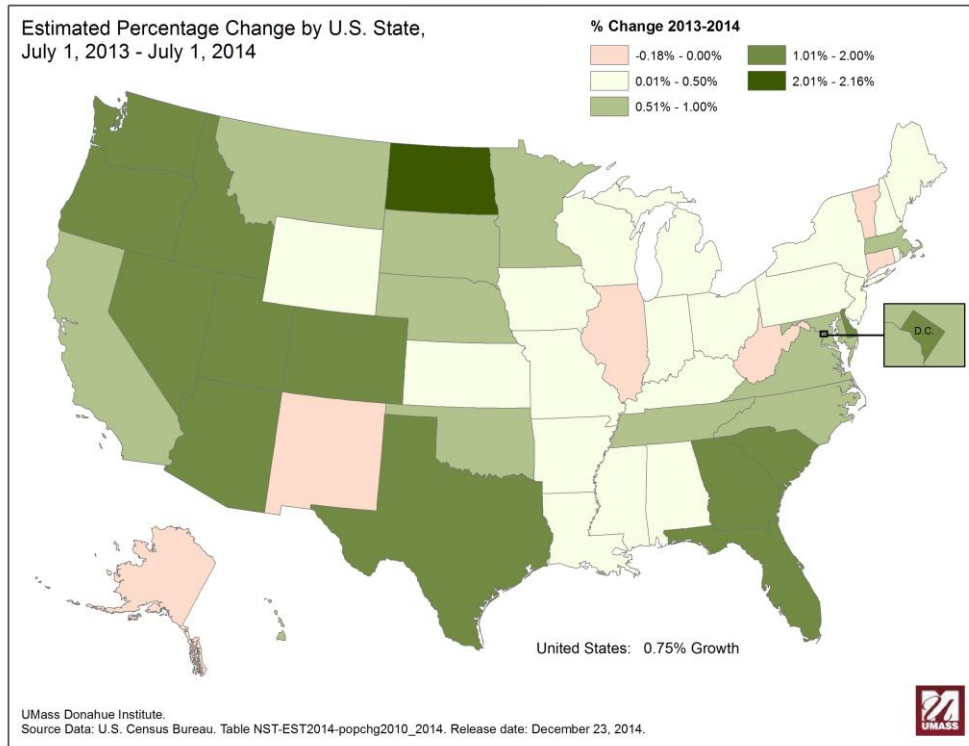
Massachusetts' cumulative population increase of 3.0% is now approaching the national average of 3.3% while its single year percentage of 0.5% lags the U.S. average of 0.7% by just a small margin. Last year, in the 2012-2013 period, Massachusetts' annual percentage growth caught up to the U.S. for the first time since 1968. While its percentage growth fell a little bit behind the U.S. average in the most recent year, Massachusetts still gains at a higher rate than the Northeast and Midwest regions which grew by just 0.2% and 0.3%, respectively, from 2013 to 2014. The Southern and Western regions meanwhile continue to lead the U.S. in terms of percentage growth, at 1.1% each over the last year. (Figure 1).



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The map below clearly demonstrates that Massachusetts stands apart from the rest of the Northeastern and Midwestern states in terms of percentage growth from 2013 to 2014, and even surpasses some states in the South and West.

Figure 2

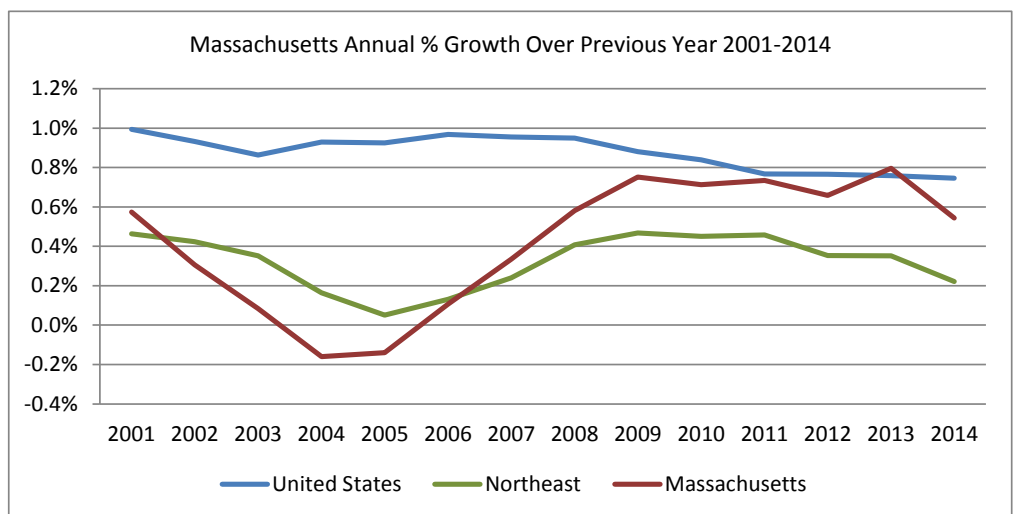


Long Term Trend

In the last decade, from the July 1, 2000 estimate to the July 1, 2010 estimate, the average growth for Massachusetts was about 0.3% per year, with an average population increase of just 19,245 per year. From 2001 to 2004, Massachusetts' growth rates, along with the Northeast rates, were actually declining, and only turned around after 2005, due in part to a reversal of domestic out-migration. Starting in 2007, the Massachusetts annual growth rate overtook the Northeast rate, at 0.5% for Massachusetts compared to 0.3% for the Northeast for that year, and by an increasing percentage thereafter. Since the 2010 Census, Massachusetts has averaged a 46,492 person increase per year.

Figure 3

The population change in Massachusetts in the latest 2013 to 2014 period represents a slight deceleration in the growth trend experienced by Massachusetts since 2010 while still showing stronger growth than experienced last decade. Figure 3 shows the percentage growth for Massachusetts as compared to the U.S. and Northeast region averages from 2001 through 2014.

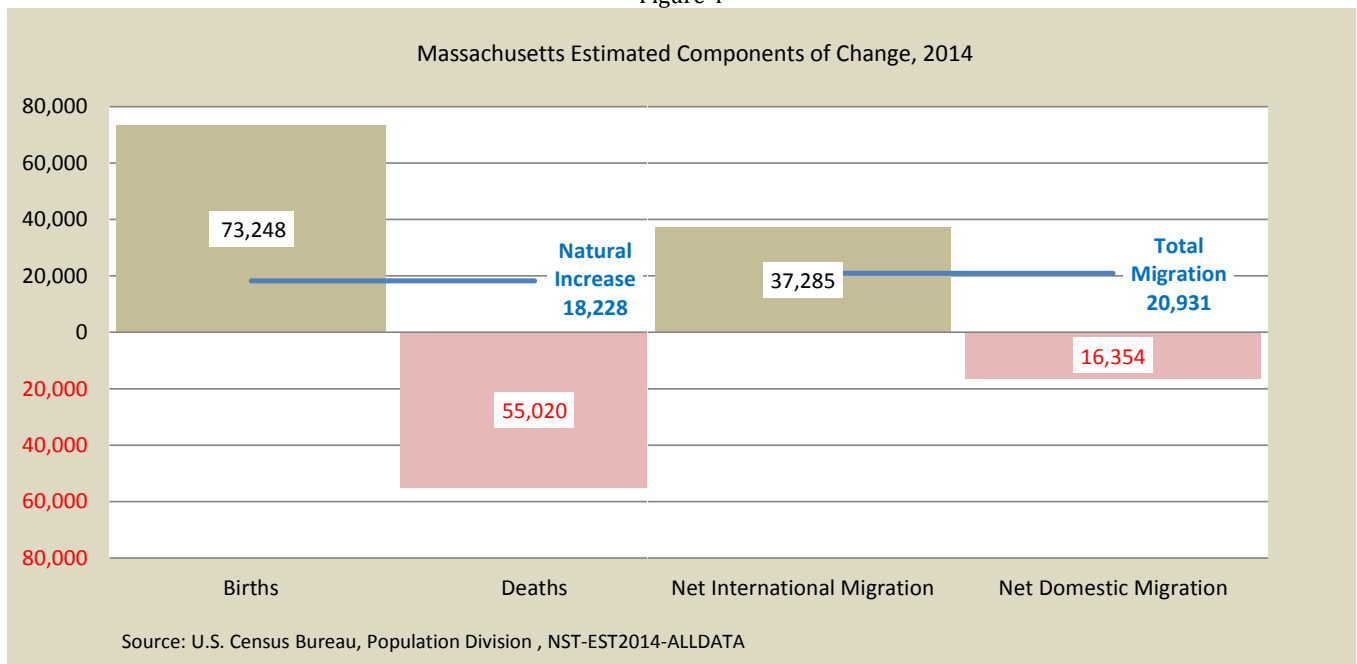


Components of Change

The U.S. Census Bureau produces revised population estimates each year by adding updated *components of change* to the Census 2010 base. These components include both the number of **births** and **deaths**, which together constitute **natural increase**. They also include **net domestic migration** (migration to and from other states within the U.S.) and **net international migration** (migration to and from other countries) which sum to **total net migration**. A fifth component, the group quarters population, is factored into the estimates base for the previous year, but is not broken out as a separate number in the Bureau’s published release.

According to the U.S. Census estimates, during the July 1, 2013 to July 1, 2014 period Massachusetts experienced 73,248 births and 55,020 deaths, for a net natural increase of 18,228. At the same time, Massachusetts experienced a net outflow of 16,354 persons to other states in the U.S. and a net inflow of 37,285 persons from other countries, for total net migration of 20,931 persons. Figure 4 below displays the extent to which a higher number of births over the number of deaths results in a positive natural increase and how positive international migration offsets negative net domestic migration to sum to positive total migration in Massachusetts during this period.

Figure 4

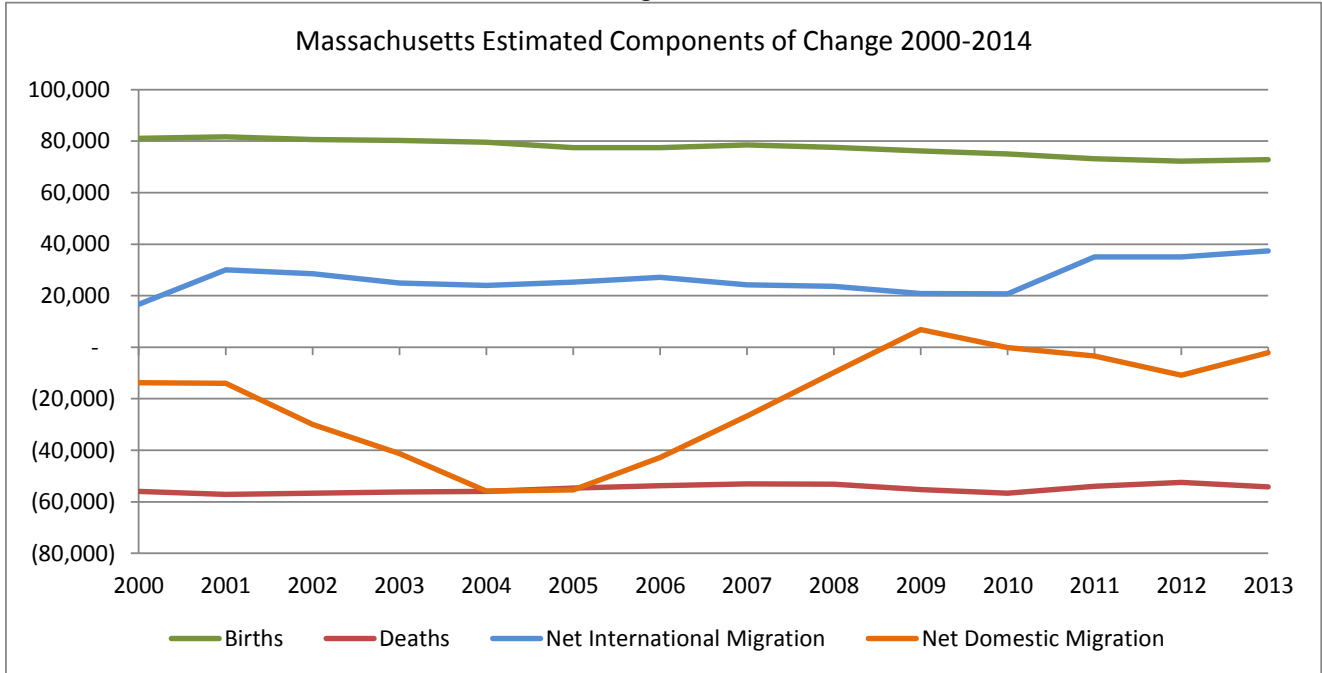


Components of Change: Trends 2000-2014

Massachusetts has long experienced, to a greater or lesser degree, component patterns similar to those seen above. Figure 5 below shows the trends in these components from 2000 through 2014. More births than deaths and positive international migration offsetting negative domestic migration have all contributed to overall population increase this decade and last - with the exception of just one recent year (2009) in which net migration on the domestic side was also positive, though only slightly. Domestic out-migration from

Massachusetts peaked in the middle of the last decade with an estimated net outflow of 55,077 persons leaving Massachusetts for other parts of the United States in 2005. This outflow was reduced significantly in 2007 (by 37%) and again in 2008 (by 63%), and then finally reversed to a positive in-flow in 2009, with an estimated 3,614 net persons moving into Massachusetts from other U.S. states. In the years since 2009, domestic migration remained on the negative side again, but the outflow has been moderate compared to the peak outflow last decade. Births and deaths throughout the 2000-2014 period have been much less variable from year to year than migration, with births showing a slight overall decline through the years and deaths continuing at about the same level over the course of the time series.

Figure 5



UMass Donahue Institute. Source Data: U.S. Census Bureau, Population Division, NST-EST2014_ALLDATA. December 23, 2014

Components of Change: Regional and State Comparisons

An examination of the components of change data begins to answer the question of why some states or regions are racing ahead in growth while others lag behind. Massachusetts, for instance, is growing twice as fast as the Northeast region on average, and faster than any other Northeast state. The estimated components data suggest that while Massachusetts shows a reasonable rate of natural increase compared to other Northeastern states, it's total positive migration – specifically the large number of international in-migrants offsetting a relatively small number of domestic out-migrants – explains why the state leads the region in growth, as shown in Table 3 below.

Table 3

Estimated Components of Change for the United States, U.S. Regions, and Northeast States, 2014						
Geography	Vital Events			Migration		
	Births	Deaths	Natural Increase	International Migration	Domestic Migration	Total Net Migration
United States	3,957,577	2,593,996	1,363,581	995,944	X	995,944
Northeast Region	637,853	478,007	159,846	262,204	(286,696)	(24,492)
Midwest Region	829,620	586,099	243,521	127,607	(182,057)	(54,450)
South Region	1,511,280	1,007,640	503,640	358,956	365,289	724,245
West Region	978,824	522,250	456,574	247,177	103,464	350,641
Connecticut	36,499	29,579	6,920	17,022	(26,216)	(9,194)
Maine	12,662	13,137	(475)	1,377	531	1,908
Massachusetts	73,248	55,020	18,228	37,285	(16,354)	20,931
New Hampshire	12,338	10,834	1,504	2,026	1,117	3,143
New Jersey	103,440	71,699	31,741	51,626	(55,469)	(3,843)
New York	240,710	154,357	86,353	118,799	(153,921)	(35,122)
Pennsylvania	142,032	128,600	13,432	29,060	(31,448)	(2,388)
Rhode Island	10,918	9,543	1,375	4,290	(3,387)	903
Vermont	6,006	5,238	768	719	(1,549)	(830)

UMass Donahue Institute. Source U.S. Census Bureau Population Division NST_EST2014_ALLDATA. Release Date December 23, 2014.

Regional and State Comparisons by Rate

An easier way to look at this data comparatively for different geographies is to first convert it to a rate –so that larger and smaller geographies can be evaluated together. Table 4 below shows the rate, per 1,000 persons, of each change component for the United States, U.S. Regions, and the Northeast States including Massachusetts.

Table 4

Estimated Components of Change Rates for the United States, U.S. Regions, and Northeast States, 2014						
Geography	Vital Events			Migration		
	Births	Deaths	Natural Increase	International Migration	Domestic Migration	Total Net Migration
United States	12.5	8.2	4.3	3.1	X	3.1
Northeast Region	11.4	8.5	2.8	4.7	(5.1)	(0.4)
Midwest Region	12.3	8.7	3.6	1.9	(2.7)	(0.8)
South Region	12.7	8.5	4.2	3.0	3.1	6.1
West Region	13.1	7.0	6.1	3.3	1.4	4.7
Connecticut	10.1	8.2	1.9	4.7	(7.3)	(2.6)
Maine	9.5	9.9	(0.4)	1.0	0.4	1.4
Massachusetts	10.9	8.2	2.7	5.5	(2.4)	3.1
New Hampshire	9.3	8.2	1.1	1.5	0.8	2.4
New Jersey	11.6	8.0	3.6	5.8	(6.2)	(0.4)
New York	12.2	7.8	4.4	6.0	(7.8)	(1.8)
Pennsylvania	11.1	10.1	1.1	2.3	(2.5)	(0.2)
Rhode Island	10.4	9.1	1.3	4.1	(3.2)	0.9
Vermont	9.6	8.4	1.2	1.1	(2.5)	(1.3)

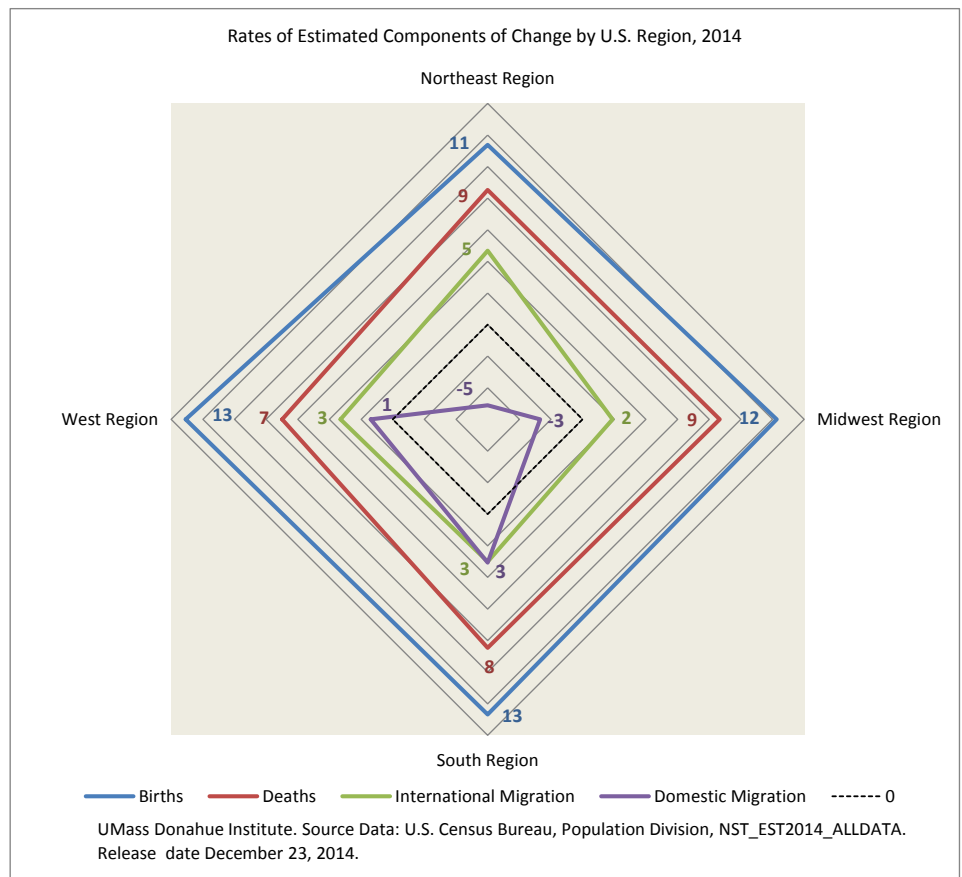
UMass Donahue Institute. Source U.S. Census Bureau Population Division NST_EST2014_ALLDATA. Release Date December 23, 2014.
Rates per 1,000 average population.

These estimated component rates indicate that in Massachusetts, births are occurring at a lower rate (10.9) than in the United States as a whole (12.5) as well as all of the U.S. region averages. Deaths in Massachusetts are occurring at a lower rate (8.2) than other regions of the U.S. except the West (7.0), but are on par with the U.S. average. Combined, these vital events lead to a natural increase rate (2.7) that is below that of the U.S. as a whole (4.3) and all of its regions, though very close to the Northeast average of 2.8. Note that all other states in the Northeast except for New Jersey and New York are showing even smaller rates of natural increase.

Within the migration component, we see that the Northeast and Midwest regions experience net domestic out-migration (-5.1 and -2.7, respectively) while the Southern and Western regions have positive domestic migration (3.1 and 1.4). The domestic migration rate of -2.4 in Massachusetts is less than that of the Northeast and Midwest regional averages (-5.1 and -2.7), but still indicates net domestic outmigration to Southern and Western states. On the other hand, the international migration rate for Massachusetts of 5.5 is higher than the U.S. as a whole (3.1) as well as all U.S. regional averages. As a result, Massachusetts total migration sums to a positive rate of 3.1 in-migrants per 1,000 population, higher than the other Northeast states as well as the Midwest regional average.

Figure 6 at right demonstrates the magnitude of each of the components on population change, graphing component rates by U.S. region. Births represent the component with the greatest influence on population change, and are more heavily weighted to the West and South. Deaths are the second most influential component, and are most prominent in the Midwest and Northeast. International migration is heavily weighted to the Northeast, while domestic migration adds to the West and especially to the South, with losses in the Midwest and Northeast. These current rates echo the component trends of the last decade. From 2000 to 2010, two areas of the United States - the South and the West - showed positive internal migration for the whole decade, meaning that a net influx of persons from other states in the Northeast and Midwest added to their population over those years.

Figure 6



Additional Information and estimates data can be found on the U.S. Census Bureau's website at <http://www.census.gov/popest/data/index.html>.

Additional UMass Donahue Institute Massachusetts summaries of U.S. Census Bureau releases can be accessed at <http://www.massbenchmarks.org/statedata/news.htm> and appear in chronological order.

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