

# Comments on 2000 Benchmark Revisions to Regional Employment Data

by Tom DeCoff

Once a year, the U.S. Bureau of Labor Statistics (BLS) revises employment data for the previous two years to incorporate the latest benchmarks. The most recent revisions were based on the 2000 benchmark and affected employment data for both 1999 and 2000. This article discusses some of the more significant revisions specific to the states and industries of New England. Similarly, the June issue of BLS's *Employment and Earnings* will highlight revisions made to national data.

This year's revisions reveal good news about New England's labor market. First, the number of jobs in the region in the year 2000 increased beyond the level originally estimated. Employment in 2000 was revised upward in all the New England states except Connecticut, and in all major industries except finance, insurance, and real estate (FIRE). Second, the revisions show that job counts are growing faster in New England than in the nation, while previous data suggested that the region was growing more slowly than the nation. Comparisons between New England and U.S. job counts should be regarded as tentative until national data are revised in June 2001; however, without doubt, the region grew faster in 2000 than it has, on average, over the last 30 years. Detailed information regarding the benchmarking procedure can be found in the sidebar on page iii.

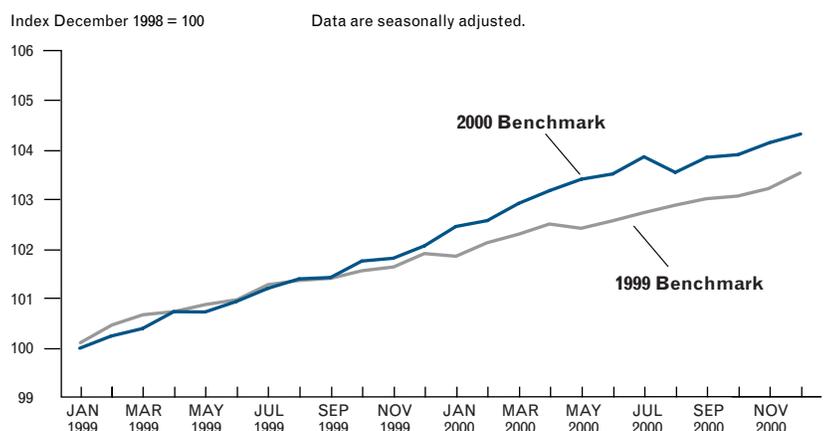
## New England and the States

For New England as a whole, benchmark revisions to year 2000 nonfarm payroll

employment were significant, with additional jobs tallied in each month of the year. Employment growth between December 1999 and December 2000, previously estimated at 1.4 percent, was revised to 2.2 percent—a rate that exceeds the (unrevised) national growth rate for that period (also 1.4 percent). Revisions to 1999 data were small, but nonetheless added jobs in the region. Exhibit 1 compares employment in New England, before and after the 2000 benchmark revisions. Comparisons for selected states are shown in Exhibit 2. Table 1 on pages v and vi summarizes previous and revised employment data for all of New England's states and industries.

Upward revisions in five of the six New England states accounted for the region's hefty employment gain in 2000. Prior to these revisions, Maine's employment was reported to have expanded 1.8 percent between year-end 1999 and year-end 2000; the

**Exhibit 1**  
Total Nonagricultural Employment in New England



revisions yielded a 2.8 percent growth rate, crowning Maine as the fastest-growing New England state in 2000. Maine's upward revisions were steepest in the services, government, and FIRE sectors. The revisions indicate that Maine's services industry grew 4.8 percent between December 1999 and December 2000, up substantially from the previously reported 2.6 percent rate of growth. Services recorded a net increase of 8,500 jobs, one-half of overall net job additions in Maine in 2000. Employment in Maine's FIRE sector was significantly revised to show growth of 3.4 percent between December 1999 and December 2000.

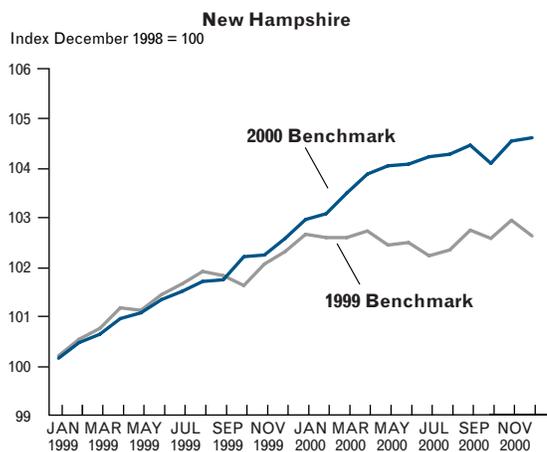
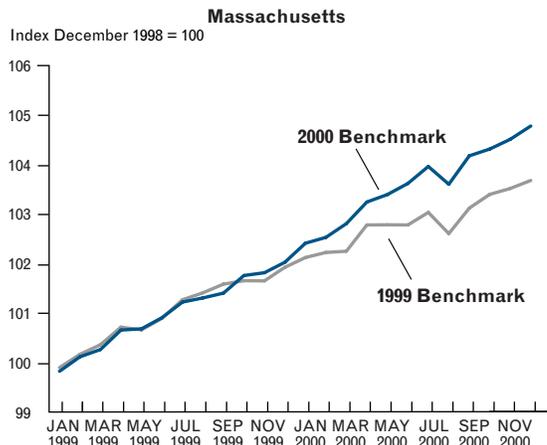
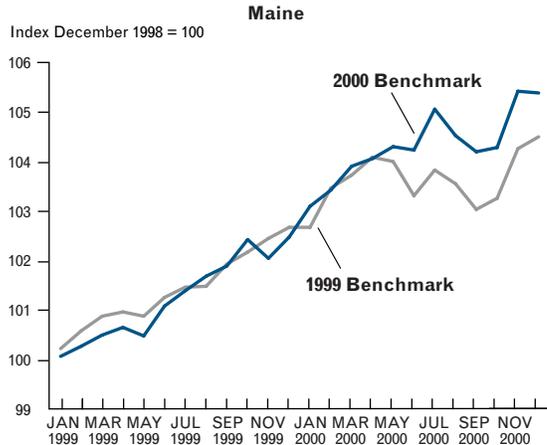
Employment in Massachusetts was also favored by the latest revisions. The Commonwealth's employment growth was initially estimated at 1.7 percent between December 1999 and December 2000, but the recent revisions indicate a growth rate of 2.7 percent. Massachusetts added 88,200 jobs, on net, between December 1999 and December 2000, considerably more than the 56,200 estimated earlier. The biggest boost occurred in the services sector, where employment grew 3.9 percent from 1999 to 2000, a faster growth rate than reported earlier (2.7 percent). Upward revisions to employment in the transportation and public utilities (TPU), retail trade, and construction sectors were also sizable in 2000, but employment in the FIRE sector was revised downward.

For the third year in a row, New Hampshire's non-farm employment experienced significant upward revisions. Previous data portrayed New Hampshire's employment growing 0.3 percent between December 1999 and December 2000, but revisions indicate growth of 2.0 percent, with a net increase of nearly 12,200 jobs. Revisions augmented job counts in the Granite State's services industry significantly, resulting in a 5.2 percent expansion in services employment from December 1999 to December 2000, while earlier data showed job losses. New Hampshire's TPU, wholesale trade, and retail trade sectors were also revised upward, but modestly so.

After revisions, both Vermont and Rhode Island were also found to have more jobs than previously reported. Connecticut was the only New England state where employment was revised downward, although the revisions were small. Despite

## Exhibit 2 Nonagricultural Employment in New England by State

Data are seasonally adjusted.



## The Benchmark Procedure

Monthly state employment estimates are based on data from the Current Employment Statistics (CES) sample of nonfarm establishments. Once a year, these sample-based estimates are realigned to benchmarks, or comprehensive counts of employment primarily derived from data reported in unemployment insurance (UI) tax reports that nearly all employers are required to file with state employment security agencies. In general, original sample-based estimates for each industry and state from the prior year are replaced with benchmark levels. The benchmarking process just completed replaces April 1999 through March 2000 sample estimates with UI-based universe counts, and to the extent that states have additional UI data, universe counts replace the sample estimates beyond March 2000. All six New England states used UI data through June 2000 in their benchmarking. The May 2001 issue of *Employment and Earnings* contains a more detailed discussion of state benchmarking methods.

Because the individual state and national series are developed through independent estimation and benchmarking processes, the individual state revisions do not sum to the national revisions. See *Employment and Earnings*, June 2000, for a description of national benchmarking methods.

The BLS is in the process of introducing a new sample design for data collection from nonfarm business establishments. The national benchmark revision in June 2000 and this year's state and area revisions both reflect the incorporation of the sample redesign for the wholesale trade industry only; the sample redesign for mining, construction, manufacturing, TPU, FIRE, retail trade, and services will be phased in through 2003, with a nine-month lag between national and state and area series. Because all employment data continue to be anchored to UI universe-based levels, there are no series breaks or discontinuities. For detailed information about the redesign, see BLS's *Important Notes about CES State and Area Data* at <http://www.bls.gov/790notes.htm>.

the downward revisions, Connecticut's employment expanded 1.2 percent between December 1999 and December 2000.

### Major Industries

All of New England's major industries saw upward revisions to 2000 job counts except FIRE where initial employment estimates were downsized. Following recent trends, employment growth was fastest in New England's construction industry (up 6.7 percent from December 1999 to December 2000), while the region's manufacturing employment shrank slightly (0.2 percent), but not by as much as the initially reported 0.6 percent. Exhibit 3 compares employment in selected New England industries prior to and after the 2000 benchmark revisions.

The revision to job totals was largest in the services sector, which constitutes roughly one-third of the region's total nonfarm employment. Employment in this sector grew 3.4 percent between year-end 1998 and year-end 1999 and by 3.3 percent between year-end 1999 and year-end 2000, while previous data showed lower rates of growth (2.9 and 2.2 percent, respectively). As was the case for total employment, Connecticut was the only New England state in which services employment was revised downward in both 1999 and 2000.

Employment in New England's TPU sector was revised upward in each month of 2000. As a result, TPU employment in the region grew 2.5 percent between December 1999 and December 2000, a rate much faster than the previously estimated 0.7 percent.

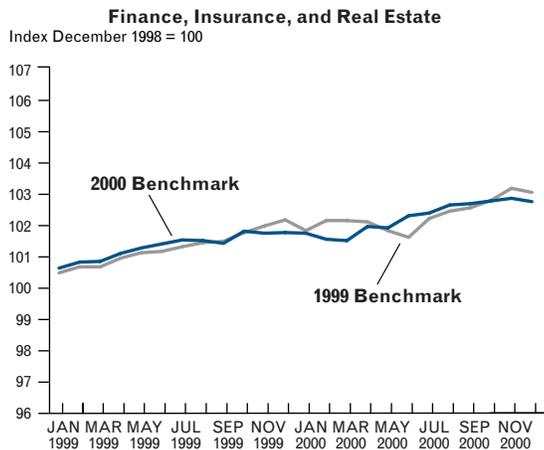
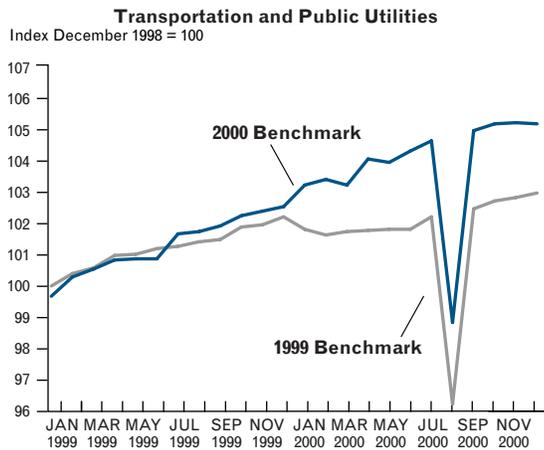
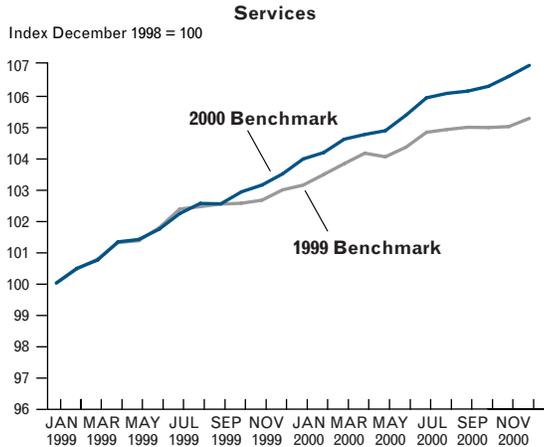
FIRE was New England's only industry to experience downward revisions with this year's benchmark. Notwithstanding downward revisions in all states but Maine and Rhode Island, the region's FIRE employment grew 1.0 percent between December 1999 and December 2000.

### Summary

The latest benchmark revisions show that, by December 2000, New England had gained almost 1.1

### Exhibit 3 Nonagricultural Employment in New England by Industry

Data are seasonally adjusted.



million jobs in the nine years since its employment trough of December 1991. Between year-end 1999 and year-end 2000, the region's employment expanded 2.2 percent, while unrevised U.S. employment grew by 1.4 percent. Employment in all six New England states showed signs of growth, but New Hampshire was the fastest-growing state in 1999, as was Maine in 2000. Employment growth across the region's industries was led by construction in both 1999 and 2000, while the manufacturing sector continued to lose jobs in both years, showing losses of 1.7 percent and 0.2 percent, respectively.

Overall, this year's revisions proved to be significant for New England, in terms of increased job counts and growth rates in most states and industries. The revisions appear to indicate that New England's employment grew faster than the nation's, while previous estimates placed New England's pace of growth on par with the nation's. However, New England's growth can properly be compared to the nation's only in June 2001, when BLS is expected to release revised national benchmark data. In the meantime, the revisions definitely reveal a region where employment is growing faster than its historical pace, an average of 1.4 percent per year over the previous 30 years.

Table 1: Previous and Revised Benchmark Employment Data

	2000 Benchmark						1999 Benchmark					
	1999			2000			1999			2000		
	Annual Average 000s of Jobs	Annual Average %Change	Dec 98 to Dec 99 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 98 to Dec 99 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change
<b>Total Nonagricultural Employment</b>												
New England	6,853.1	2.0	2.0	7,012.4	2.3	2.2	6,852.3	2.0	1.9	6,967.1	1.7	1.4
Connecticut	1,668.5	1.6	1.3	1,693.2	1.5	1.2	1,671.4	1.7	1.5	1,694.3	1.4	1.0
Maine	586.3	3.0	2.5	604.1	3.0	2.8	585.8	2.9	2.7	598.7	2.2	1.8
Massachusetts	3,236.1	1.8	2.1	3,319.9	2.6	2.7	3,235.2	1.9	1.9	3,294.2	1.8	1.7
New Hampshire	605.6	2.8	2.6	621.1	2.6	2.0	605.2	2.8	2.3	612.3	1.2	0.3
Rhode Island	465.3	1.7	2.4	475.8	2.3	1.3	464.5	1.5	1.6	471.6	1.5	1.5
Vermont	291.4	2.3	3.1	298.2	2.3	1.8	290.3	1.9	1.9	296.0	2.0	1.9
<b>Manufacturing Employment</b>												
New England	1,017.4	-2.8	-1.7	1,010.6	-0.7	-0.2	1,017.6	-2.7	-1.6	1,008.1	-0.9	-0.6
Connecticut	268.3	-3.1	-3.0	262.3	-2.2	-1.4	269.2	-2.8	-2.3	265.3	-1.4	-1.3
Maine	86.2	-1.1	0.3	85.1	-1.3	-2.3	86.1	-1.1	0.1	84.7	-1.7	-2.3
Massachusetts	433.7	-3.2	-1.6	435.8	0.5	0.9	433.5	-3.2	-1.8	430.9	-0.6	-0.2
New Hampshire	106.6	-1.8	-0.7	105.7	-0.9	-0.9	106.6	-1.8	-0.6	105.7	-0.8	-0.1
Rhode Island	74.7	-4.0	-3.3	72.9	-2.4	-1.5	74.5	-4.3	-2.2	73.5	-1.3	-0.1
Vermont	47.9	-0.2	0.2	48.9	2.0	2.7	47.8	-0.3	-0.4	48.0	0.5	1.3
<b>Durable Goods Manufacturing Employment</b>												
New England	656.3	-3.1	-1.7	655.6	-0.1	0.8	656.8	-3.0	-1.7	651.6	-0.8	-0.1
Connecticut	187.1	-4.0	-3.9	182.7	-2.3	-0.8	187.7	-3.7	-3.0	184.7	-1.6	-1.3
Maine	42.9	1.4	2.6	42.9	0.0	0.0	42.9	1.5	2.4	42.4	-1.1	-1.2
Massachusetts	269.0	-4.3	-1.8	272.8	1.4	2.2	268.9	-4.3	-2.4	268.1	-0.3	0.6
New Hampshire	76.0	-0.2	0.0	75.6	-0.6	-0.4	76.2	0.0	0.4	75.7	-0.6	1.2
Rhode Island	48.6	-2.8	-0.6	47.9	-1.5	-1.2	48.7	-2.7	0.8	47.9	-1.7	-1.8
Vermont	32.6	-0.1	-0.3	33.7	3.4	4.9	32.5	-0.5	-1.2	32.9	1.2	1.8
<b>Nondurable Goods Manufacturing Employment</b>												
New England	361.1	-2.2	-1.7	355.0	-1.7	-2.1	360.9	-2.3	-1.5	356.5	-1.2	-1.4
Connecticut	81.2	-1.0	-1.0	79.6	-2.0	-2.6	81.5	-0.7	-0.7	80.5	-1.2	-1.2
Maine	43.4	-3.4	-1.8	42.3	-2.5	-4.6	43.3	-3.5	-2.1	42.3	-2.3	-3.5
Massachusetts	164.7	-1.4	-1.2	163.0	-1.0	-1.1	164.6	-1.4	-0.7	162.9	-1.1	-1.5
New Hampshire	30.6	-5.5	-2.3	30.1	-1.7	-2.3	30.4	-6.1	-2.9	30.0	-1.4	-3.3
Rhode Island	26.0	-6.3	-8.0	24.9	-4.2	-2.0	25.8	-7.0	-7.7	25.7	-0.5	3.2
Vermont	15.3	-0.3	1.3	15.1	-0.9	-2.0	15.3	0.1	1.3	15.2	-0.9	0.0
<b>Nonmanufacturing Employment</b>												
New England	5,835.7	2.8	2.7	6,001.8	2.8	2.6	5,834.7	2.8	2.5	5,959.0	2.1	1.8
Connecticut	1,400.2	2.5	2.2	1,430.9	2.2	1.7	1,402.2	2.7	2.3	1,429.0	1.9	1.4
Maine	500.0	3.7	2.8	519.0	3.8	3.7	499.7	3.6	3.1	514.1	2.9	2.5
Massachusetts	2,802.5	2.7	2.6	2,884.1	2.9	3.0	2,801.7	2.7	2.5	2,863.3	2.2	2.0
New Hampshire	498.9	3.9	3.3	515.5	3.3	2.6	498.6	3.8	3.0	506.6	1.6	0.4
Rhode Island	390.6	2.8	3.5	402.9	3.2	1.9	390.0	2.7	2.4	398.1	2.1	1.8
Vermont	243.5	2.8	3.7	249.4	2.4	1.6	242.5	2.3	2.3	247.9	2.3	2.0
<b>Construction Employment</b>												
New England	264.9	8.1	6.7	283.0	6.9	6.7	264.5	8.1	6.8	281.0	6.3	5.8
Connecticut	61.3	4.2	4.5	65.2	6.4	5.2	60.9	3.5	3.2	63.2	3.9	3.9
Maine	28.0	11.6	7.2	29.6	5.8	5.3	28.1	12.1	11.8	30.5	8.9	7.5
Massachusetts	119.1	10.0	9.2	129.8	9.0	10.0	118.7	9.8	8.1	127.7	7.6	7.6
New Hampshire	24.2	5.5	1.7	25.1	3.4	2.4	24.5	6.4	2.9	26.1	6.9	5.6
Rhode Island	17.7	11.4	7.0	18.6	4.8	3.8	17.8	12.3	10.7	18.6	4.3	3.8
Vermont	14.5	4.9	4.3	14.7	1.7	-0.7	14.6	5.7	3.5	14.9	1.8	-1.4

**Table 1: Previous and Revised Benchmark Employment Data, continued**

	2000 Benchmark						1999 Benchmark					
	1999			2000			1999			2000		
	Annual Average 000s of Jobs	Annual Average %Change	Dec 98 to Dec 99 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 98 to Dec 99 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change
<b>Transportation and Public Utilities Employment</b>												
New England	291.5	2.3	2.4	298.5	2.4	2.5	291.1	2.2	2.1	292.4	0.4	0.7
Connecticut	77.5	2.3	1.2	79.2	2.2	2.6	78.2	3.1	2.3	78.7	0.6	0.1
Maine	24.1	2.3	0.8	24.3	0.7	-0.4	24.0	1.6	0.0	24.2	1.2	2.1
Massachusetts	139.7	2.4	3.5	143.8	2.9	3.3	139.1	2.0	2.8	139.4	0.2	0.8
New Hampshire	21.5	4.9	2.8	21.9	1.9	-0.5	21.5	4.9	0.5	21.4	-0.5	-1.4
Rhode Island	16.3	1.2	2.5	16.9	3.4	3.0	16.1	-0.1	0.0	16.1	0.1	2.5
Vermont	12.3	-1.3	0.8	12.4	1.0	2.4	12.4	-0.8	3.3	12.6	2.2	2.4
<b>Wholesale Trade Employment</b>												
New England	348.1	0.7	0.5	354.6	1.9	2.3	350.2	1.3	1.2	354.0	1.1	1.4
Connecticut	81.6	-1.4	-0.6	83.1	1.8	1.7	81.9	-1.0	-0.8	81.8	-0.1	0.7
Maine	27.0	2.2	2.7	27.4	1.4	3.0	27.3	3.1	5.3	28.3	3.8	2.9
Massachusetts	175.6	0.5	-0.2	178.0	1.3	2.3	176.8	1.2	0.8	178.5	1.0	1.2
New Hampshire	31.7	4.7	3.6	32.9	3.7	3.8	31.8	5.2	4.2	32.2	1.2	2.5
Rhode Island	19.7	3.3	1.5	20.5	3.9	3.0	19.8	4.0	2.6	20.3	2.4	0.5
Vermont	12.5	0.9	3.3	12.8	2.3	1.6	12.6	1.5	3.3	12.9	2.7	3.1
<b>Retail Trade Employment</b>												
New England	1,223.1	2.7	2.2	1,250.9	2.3	1.8	1,225.2	3.0	2.5	1,243.3	1.5	0.9
Connecticut	277.6	1.7	1.4	282.2	1.7	1.0	277.6	1.7	1.6	281.8	1.5	0.4
Maine	119.0	2.6	1.4	123.0	3.3	3.2	119.1	2.7	2.7	121.9	2.4	1.8
Massachusetts	559.3	2.5	1.5	570.2	1.9	2.0	562.0	3.0	2.5	567.1	0.9	0.6
New Hampshire	128.4	4.9	4.4	131.6	2.5	1.8	128.3	4.8	3.0	130.0	1.3	0.4
Rhode Island	84.4	5.2	7.2	88.5	4.9	1.8	84.2	5.1	4.8	87.2	3.6	4.0
Vermont	54.4	2.7	2.8	55.3	1.8	1.6	54.1	2.3	2.1	55.3	2.2	1.5
<b>Finance, Insurance, and Real Estate Employment</b>												
New England	472.4	3.5	1.7	476.8	0.9	1.0	472.9	3.6	2.1	477.8	1.0	0.9
Connecticut	140.0	2.6	1.2	141.2	0.8	0.4	140.7	3.1	1.7	141.6	0.6	0.4
Maine	31.4	5.6	4.9	32.3	3.0	3.4	31.0	4.4	2.0	30.9	-0.3	0.0
Massachusetts	226.3	3.7	1.5	227.6	0.6	1.0	226.3	3.7	2.2	230.0	1.6	1.4
New Hampshire	32.6	3.7	2.2	32.7	0.5	0.6	32.6	4.0	3.4	32.9	0.9	0.9
Rhode Island	29.7	4.2	2.4	30.6	3.1	2.0	29.6	4.2	2.0	29.9	0.7	-0.3
Vermont	12.6	2.8	0.8	12.4	-1.5	-0.8	12.6	2.4	1.6	12.5	-0.5	0.0
<b>Services Employment</b>												
New England	2,290.2	2.9	3.4	2,371.1	3.5	3.3	2,286.6	2.7	2.9	2,346.0	2.6	2.2
Connecticut	526.2	3.0	3.0	537.1	2.1	1.8	526.6	3.1	2.8	539.4	2.4	2.0
Maine	173.8	4.2	3.9	182.4	4.9	4.8	174.1	4.4	3.9	179.9	3.3	2.6
Massachusetts	1,163.4	2.7	3.6	1,208.9	3.9	3.9	1,160.6	2.5	3.0	1,193.8	2.9	2.7
New Hampshire	178.6	3.4	3.3	187.8	5.2	5.2	177.9	3.1	3.0	180.1	1.3	-0.4
Rhode Island	159.3	1.4	2.6	163.4	2.6	2.2	159.1	1.4	1.5	162.0	1.8	1.6
Vermont	89.0	3.2	5.3	91.5	2.8	1.4	88.3	2.3	3.2	90.8	2.7	2.4
<b>Government Employment</b>												
New England	942.0	2.1	1.9	963.4	2.3	1.3	940.8	2.0	1.4	960.9	2.1	1.5
Connecticut	235.1	3.3	2.6	242.0	2.9	1.6	235.6	3.5	3.0	241.6	2.6	2.0
Maine	96.7	2.2	1.5	100.0	3.4	3.4	96.1	1.6	0.3	98.1	2.1	2.4
Massachusetts	417.6	1.5	1.3	424.5	1.6	1.0	416.9	1.3	0.7	425.3	2.0	1.4
New Hampshire	81.5	2.3	2.7	83.0	1.8	-0.6	81.6	2.4	3.0	83.5	2.3	0.1
Rhode Island	63.4	0.8	1.4	64.4	1.5	-0.2	63.2	0.4	0.0	63.9	1.1	0.0
Vermont	47.7	3.3	3.2	49.6	3.9	3.1	47.4	2.4	0.9	48.5	2.3	3.2

Source: U.S. Bureau of Labor Statistics.