

Comments on 2001 Benchmark Revisions to Regional Employment Data

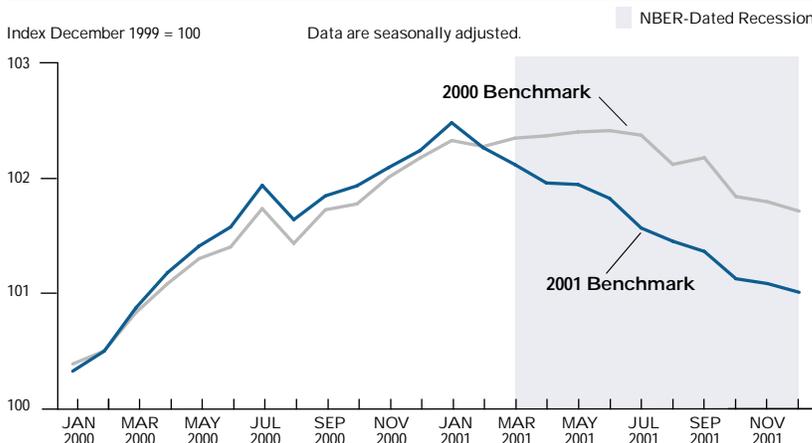
by Tom DeCoff

In March 2002, the U.S. Bureau of Labor Statistics (BLS) released revised state and regional employment data based on the 2001 benchmark, affecting data for 2000 and 2001. Contrary to the employment boost shown in last year's revisions, the 2002 revisions increased New England's measured employment levels slightly for 2000 and reduced them in nearly all states and industries for 2001. Furthermore, the revisions show that the recession that began in 2001 had a deeper impact on employment in the region than in the nation, as New England's year-end employment decreased for the first time in a decade. Until national data are revised in June 2002, comparisons between New England and U.S. job counts should be considered tentative. While this article discusses some of the significant revisions in New England states and selected industries, Table 1 presents

a complete summary of revisions to employment data in all New England states and major industries.

The revisions revealed a moderate number of additional jobs throughout New England in 2000, but showed fewer jobs throughout most of 2001. As a result, New England's employment growth over the course of 2000 remained robust at 2.2 percent, on par with previous estimates and outpacing the nation's 1.8 percent growth. However, between December 2000 and December 2001, New England's employment shrank 1.2 percent, a loss more sizable than the nation's 0.8 percent contraction and much more severe than the region's previously estimated 0.4 percent contraction. Exhibit 1 shows the effect of the latest revisions on the region's employment data for 2000 and 2001.

Exhibit 1
Total Nonagricultural Employment in New England



New England's States

Connecticut

As shown in Exhibit 2, revisions to Connecticut's employment data were modest for 2000 but significant for 2001, as job counts were cut in every month since September 2000. As a result, Connecticut's employment contracted 1.3 percent between December 2000 and 2001, or 0.2 percentage points more than previously estimated. The change in average monthly employment levels between 2000 and 2001 was also revised downward, to minus 0.6 percent. Revisions were mixed across major industries. Construction employment, previously estimated to have declined 3.3 percent, actually expanded by

0.2 percent after revisions. Meanwhile, the 1.6 percent slice in transportation and public utilities (TPU) employment widened to 4.2 percent after the revisions.

Maine

The latest revisions ironed out the slight contraction previously estimated for Maine's total employment over the course of 2001. With zero employment growth, Maine was the only New England state not to lose jobs during this period. Maine was also the only New England state where the number of retail jobs increased, while all other states lost retail jobs. The Pine Tree State also saw growth in its FIRE, services, and government employ-

ment; conversely, Maine was the only state in the region to show a decline (0.3 percent) in construction employment.

Massachusetts

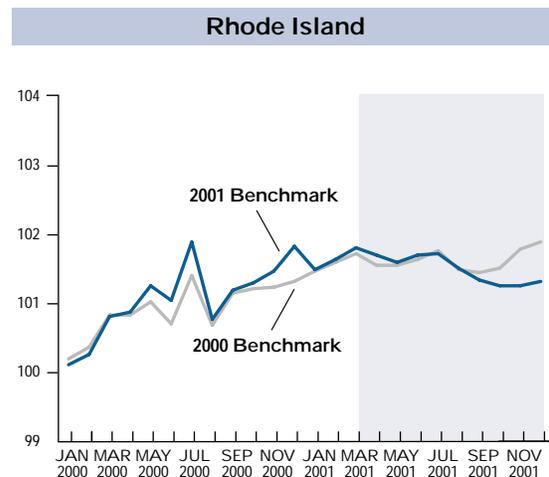
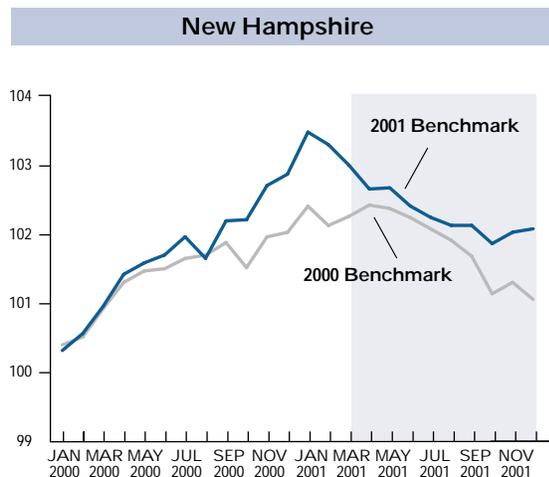
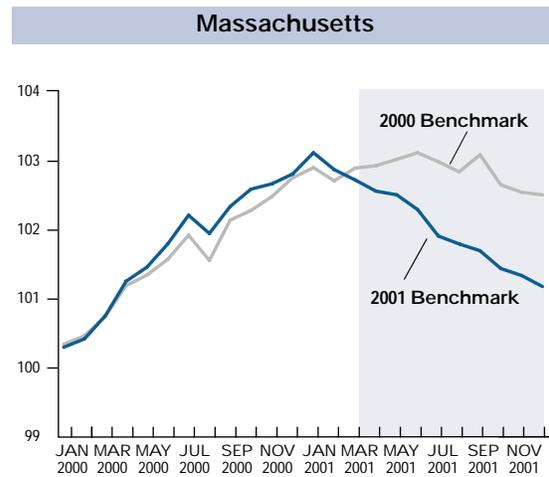
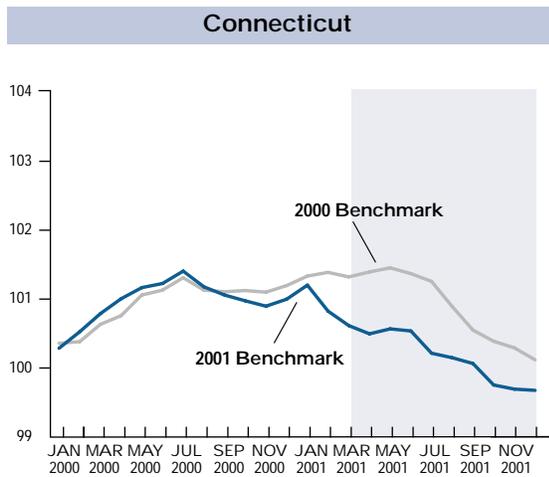
This year's revisions added jobs throughout most of 2000 in Massachusetts, bumping December-to-December growth up to 2.8 percent — along with New Hampshire, the fastest growth rate in New England. However, beginning in March 2001, revisions resulted in lower employment levels through the rest of the year. As a result, year-end employment was 1.5 percent lower than at the end of 2000 — a more significant loss than the 0.2 percent contraction previously reported. Overall, job losses in

Exhibit 2
Nonagricultural Employment in New England by State

Index December 1999 = 100

Data are seasonally adjusted.

■ NBER-Dated Recession



The Benchmark Procedure

Monthly state employment data are actually estimates 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. Nearly all employers are required to file these reports 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 latest benchmarking process replaces April 2000 through March 2001 sample estimates with UI-based universe counts, although some states may use universe counts beyond March 2001. While annual benchmark revisions to state-level data are typically performed in March, national data are revised in June. Because individual state and national series are developed through independent estimation and benchmarking processes, the individual state revisions do not sum to the national revisions.

Beginning with the wholesale trade industry in June 2000, BLS introduced a new sample design for data collection from nonfarm business establishments. Last year's national benchmark revision in June 2001 and this year's state-level revisions in March both reflect the sample redesign for the mining, construction, and manufacturing industries. Sample redesigns for the TPU, FIRE, retail trade, and services industries will be phased in through 2003, with state-level series lagging the national series by nine months. Because all employment data continue to be anchored to UI universe-based levels, there are no series breaks or discontinuities.

Massachusetts during 2001 accounted for more than two-thirds of all the job losses in New England.

New Hampshire

Upward revisions to New Hampshire's 2000 employment data lifted statewide job growth from the 2.0 percent estimated earlier to 2.8 percent, the highest rate in New England in 2000 (tied with Massachusetts). In 2001, despite being the only New England state with

upward revisions for every month, New Hampshire experienced a 0.8 percent contraction in employment during the year, only slightly better than the previously estimated 0.9 percent drop. Revisions also indicate that, at a rate of 9.0 percent, growth in New Hampshire's construction employment was much faster than previously estimated, and by far faster than in any other New England state.

Rhode Island

Overall, revisions to the Ocean State's employment were numerically small, yet changed the picture of employment in a meaningful way. Between 1999 and 2000, year-end employment grew 1.8 percent, with jobs added faster than previously reported. However, downward revisions in 2001 adversely affected employment statistics; after revisions, the year-end job count was 0.5 percent lower than a year before — a marked reduction from the previously estimated 0.6 percent expansion. While downward revisions elsewhere in New England began in the first or second quarter of 2001, Rhode Island's downward revisions did not begin until the third quarter.

Vermont

Vermont's revised employment level for December 2001 was 1.4 percent lower than a year earlier, a larger contraction than the previously estimated 0.5 percent decline. Among the New England states, only Massachusetts showed a steeper decline. Revisions to Vermont's FIRE employment upgraded a previously estimated contraction into a 2.4 percent expansion. However, revisions to TPU, wholesale trade, and services employment revealed year-end reductions where previous estimates showed zero to moderate growth.

New England's Industries

Construction

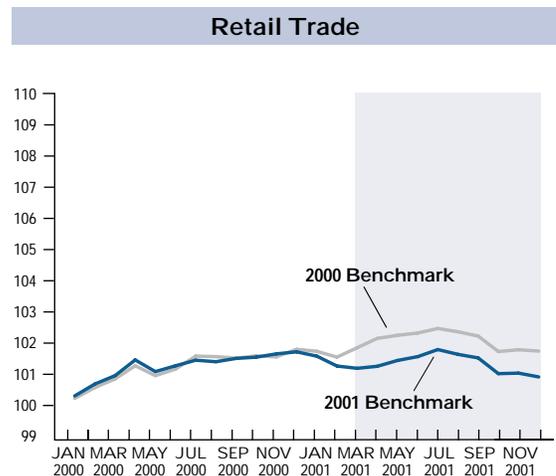
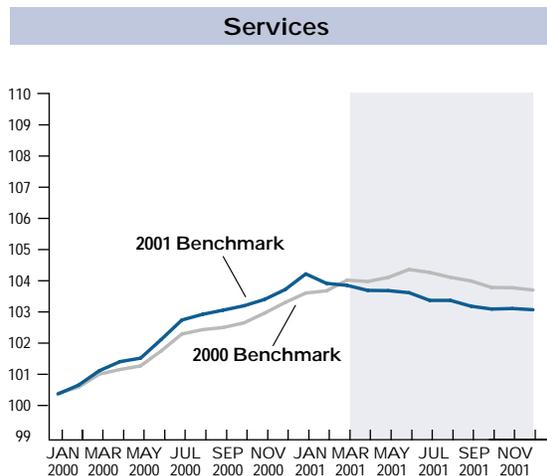
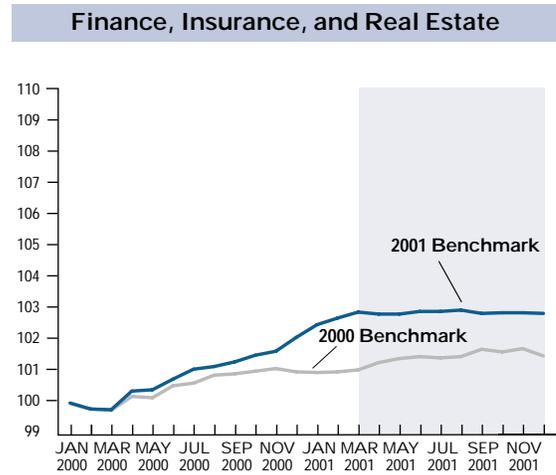
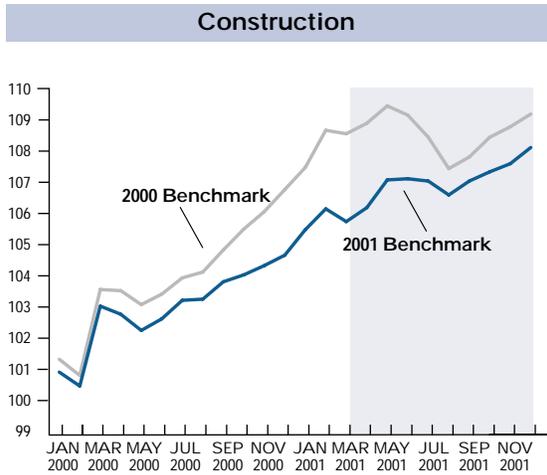
Construction was the only major New England industry with downward revisions in each of the 24 months spanning 2000 and 2001 (see Exhibit 3). Nevertheless, even after revisions, employment growth in this sector was robust in both years. Between December

Exhibit 3 Nonagricultural Employment in New England by Industry

Index December 1999 = 100

Data are seasonally adjusted.

NBER-Dated Recession



1999 and December 2000, New England’s construction employment increased 4.6 percent, the fastest industry growth rate in the region. In 2001, after revisions, employment growth was 3.3 percent, again by far the region’s most positive industry growth. Construction revisions were especially large for Rhode Island, where the previously estimated double-digit employment growth rate was leveled to a 0.0 percent change.

Finance, Insurance, and Real Estate (FIRE)

In contrast to construction, FIRE was the only industry in New England where employment figures were revised upward in each month of 2000 and 2001. Although job counts in this sector in 2001 were approxi-

mately level after March, none of the six states showed job losses in FIRE over the year. Overall, revisions to the region’s FIRE employment over 2001 upgraded the previously estimated 0.5 percent growth rate to 0.7 percent.

Services

The benchmark revisions indicate employment in New England’s services industries during 2000 was higher than previously estimated; the number of services jobs in the region rose 3.8 percent over the 12 months. By contrast, growth in the region’s services employment was revised downward in 2001, from a previously estimated 0.4 percent increase to a 0.6 percent decrease. While four of the six states experienced a decline in services employ-

ment over the course of 2001, losses were focused in Massachusetts, where previously estimated job gains were revised to a 1.4 percent drop. By contrast, Rhode Island's revisions were positive, boosting the state's 2001 services employment growth rate to 2.7 percent.

Retail Trade

Revisions indicate a deeper contraction in retail trade employment during 2001 than previously estimated, as the slight shrinkage previously estimated widened to 0.8 percent. In December 2001, all New England states except Maine showed lower retail job counts than a year earlier. Retail employment in Massachusetts, where, according to previous estimates, job counts were level with year-earlier counts, was revised steeply downward,

yielding a 0.9 percent drop during 2001.

Manufacturing

The benchmark revisions revealed more manufacturing jobs in New England in 2000 than previously estimated and fewer in 2001. According to the revisions, the shrinkage of New England's manufacturing employment was more adverse during 2001 than previously estimated. Manufacturing employment was revised downward to a 6.6 percent job loss over the 12 months. The region's 2001 employment losses were more severe in durable goods manufacturing than in nondurables manufacturing. All six New England states showed drops steeper than 6.0 percent; however, New Hampshire's 6.1 loss was not as large as previously estimated.

Revisions to Unemployment Data

Unemployment data undergo annual revisions similar to the benchmark revisions performed on payroll employment data. The state and regional unemployment data, sometimes referred to as local area unemployment (LAU) data, include estimates of the number of persons in the labor force and number unemployed as well as the unemployment rate. The LAU revisions reflect the update of model inputs, the re-estimation of models, benchmarks to Current Population Survey (CPS) annual averages, and the application of new seasonal adjustment factors. Generally, LAU revisions affect seasonally adjusted statewide data for the previous five years, and are performed at the same time

as the benchmark revisions to state-level payroll employment.

This year's LAU revisions indicate that unemployment was more widespread throughout the region in 2000 and 2001 than previously reported. Year-end unemployment rates in all New England states were revised upward for both 2000 and 2001. Revisions to the size of the labor force were modest compared with the upward revisions in counts of unemployed individuals. Thus, most of the upward revision in unemployment rates was attributable to corrections of previously understated counts of unemployed individuals.

Unemployment Rates

	Current Estimates		Previous Estimates	
	Dec 2000 Percent	Dec 2001 Percent	Dec 2000 Percent	Dec 2001 Percent
New England	2.7	4.3	2.4	4.0
Connecticut	2.3	4.0	2.0	3.6
Maine	3.4	4.3	2.7	4.0
Massachusetts	2.6	4.4	2.3	4.2
New Hampshire	2.8	3.9	2.3	3.7
Rhode Island	4.2	5.0	3.6	4.8
Vermont	3.0	4.3	2.7	3.9

For more information

U.S. Bureau of Labor Statistics. "BLS Establishment Estimates Revised to Incorporate March 2000 Benchmarks."

<<http://www.bls.gov/web/cesbmart.htm>>

(27 March 2002)

U.S. Bureau of Labor Statistics. "Preliminary 2001 Benchmark Revision- Questions and Answers."

<<http://www.bls.gov/web/cesbmpkg.htm>>

(8 March 2002)

U.S. Bureau of Labor Statistics. "Local Area Unemployment Statistics Important Information."

<<http://www.bls.gov/lau/launews1.htm>>

(27 February 2002)

U.S. Bureau of Labor Statistics. "Introduction of CES Program Redesign Data for Goods Producing Industries in the March 2001 Benchmark Revision."

<<http://www.bls.gov/sae/790notes.htm>>

(27 March 2002)

Table 1: Previous and Revised Benchmark Employment Data

	2001 Benchmark						2000 Benchmark					
	2000			2001			2000			2001		
	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 00 to Dec 01 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 00 to Dec 01 %Change
Total Nonagricultural Employment												
New England	7,018.4	2.4	2.2	7,033.6	0.2	-1.2	7,012.4	2.3	2.2	7,068.5	0.8	-0.4
Connecticut	1,693.5	1.5	1.0	1,682.8	-0.6	-1.3	1,693.2	1.5	1.2	1,693.9	0.0	-1.1
Maine	603.6	2.9	2.4	609.2	0.9	0.0	604.1	3.0	2.8	611.4	1.2	-0.2
Massachusetts	3,323.9	2.7	2.8	3,336.7	0.4	-1.5	3,319.9	2.6	2.7	3,360.3	1.2	-0.2
New Hampshire	622.2	2.7	2.8	627.2	0.8	-0.8	621.1	2.6	2.0	624.2	0.5	-0.9
Rhode Island	476.7	2.5	1.8	478.9	0.5	-0.5	475.8	2.3	1.3	479.1	0.7	0.6
Vermont	298.6	2.5	2.2	298.9	0.1	-1.4	298.2	2.3	1.8	299.7	0.5	-0.5
Manufacturing Employment												
New England	1,015.1	-0.3	0.5	980.0	-3.5	-6.6	1,010.6	-0.7	-0.2	984.7	-2.6	-4.9
Connecticut	263.3	-1.9	-0.7	254.0	-3.6	-6.1	262.3	-2.2	-1.4	256.1	-2.4	-4.4
Maine	85.2	-1.2	-2.1	81.1	-4.8	-7.7	85.1	-1.3	-2.3	81.4	-4.4	-7.1
Massachusetts	437.4	0.8	1.4	423.4	-3.2	-6.7	435.8	0.5	0.9	425.8	-2.3	-4.5
New Hampshire	106.8	0.1	1.5	103.9	-2.7	-6.1	105.7	-0.9	-0.9	102.1	-3.3	-6.7
Rhode Island	73.3	-1.8	-0.5	69.9	-4.6	-7.1	72.9	-2.4	-1.5	70.5	-3.2	-4.4
Vermont	49.0	2.2	2.7	47.7	-2.5	-6.9	48.9	2.0	2.7	48.8	-0.2	-3.6
Durable Goods Manufacturing Employment												
New England	660.6	0.6	2.3	643.3	-2.6	-7.2	655.6	-0.1	0.8	639.5	-2.5	-5.5
Connecticut	183.6	-1.9	-0.2	177.4	-3.4	-6.4	182.7	-2.3	-0.8	178.2	-2.5	-4.9
Maine	42.9	-0.1	0.0	41.7	-2.8	-8.1	42.9	0.0	0.0	41.5	-3.1	-7.2
Massachusetts	275.0	2.2	3.9	268.9	-2.2	-7.5	272.8	1.4	2.2	266.4	-2.3	-5.4
New Hampshire	76.9	1.1	3.6	75.7	-1.5	-6.1	75.6	-0.6	-0.4	73.1	-3.2	-7.2
Rhode Island	48.5	-0.4	0.8	46.3	-4.4	-8.3	47.9	-1.5	-1.2	46.2	-3.6	-6.1
Vermont	33.8	3.5	4.9	33.2	-1.7	-7.8	33.7	3.4	4.9	34.1	0.9	-3.5
Nondurable Goods Manufacturing Employment												
New England	354.4	-1.9	-2.8	336.8	-5.0	-5.5	355.0	-1.7	-2.1	345.2	-2.8	-3.6
Connecticut	79.7	-1.9	-2.0	76.6	-4.0	-5.4	79.6	-2.0	-2.6	77.9	-2.1	-3.0
Maine	42.3	-2.3	-4.2	39.4	-6.9	-7.3	42.3	-2.5	-4.6	39.8	-5.7	-7.1
Massachusetts	162.5	-1.4	-2.8	154.5	-4.9	-5.1	163.0	-1.0	-1.1	159.4	-2.2	-3.0
New Hampshire	29.9	-2.4	-3.6	28.2	-5.8	-6.1	30.1	-1.7	-2.3	29.0	-3.6	-5.4
Rhode Island	24.9	-4.5	-3.2	23.6	-5.1	-4.9	24.9	-4.2	-2.0	24.3	-2.5	-1.2
Vermont	15.2	-0.4	-2.0	14.5	-4.3	-4.7	15.1	-0.9	-2.0	14.7	-2.6	-4.0
Nonmanufacturing Employment												
New England	6,003.3	2.9	2.5	6,053.5	0.8	-0.3	6,001.8	2.8	2.6	6,083.9	1.4	0.3
Connecticut	1,430.2	2.1	1.3	1,428.9	-0.1	-0.4	1,430.9	2.2	1.7	1,437.8	0.5	-0.5
Maine	518.3	3.6	3.2	528.0	1.9	1.2	519.0	3.8	3.7	530.0	2.1	0.9
Massachusetts	2,886.4	3.0	3.0	2,913.3	0.9	-0.8	2,884.1	2.9	3.0	2,934.5	1.7	0.4
New Hampshire	515.4	3.3	3.1	523.2	1.5	0.3	515.5	3.3	2.6	522.1	1.3	0.2
Rhode Island	403.4	3.3	2.3	409.0	1.4	0.7	402.9	3.2	1.9	408.6	1.4	1.5
Vermont	249.6	2.5	2.1	251.1	0.6	-0.3	249.4	2.4	1.6	250.9	0.6	0.1
Construction Employment												
New England	281.5	6.3	4.6	291.8	3.7	3.3	283.0	6.9	6.7	295.4	4.4	2.2
Connecticut	64.9	5.7	2.4	65.2	0.5	0.2	65.2	6.4	5.2	65.8	0.8	-3.3
Maine	29.5	6.0	3.5	29.8	1.0	-0.3	29.6	5.8	5.3	30.6	3.4	2.3
Massachusetts	129.3	8.5	7.6	136.9	5.9	5.2	129.8	9.0	10.0	138.7	6.8	4.1
New Hampshire	25.0	3.0	4.5	26.8	7.3	9.0	25.1	3.4	2.4	25.9	3.1	1.6
Rhode Island	18.1	2.1	-1.6	18.4	1.6	0.0	18.6	4.8	3.8	19.8	6.8	11.1
Vermont	14.8	1.7	0.0	14.8	-0.1	0.7	14.7	1.7	-0.7	14.7	-0.6	0.0

Table 1: Previous and Revised Benchmark Employment Data, continued

	2001 Benchmark						2000 Benchmark					
	2000			2001			2000			2001		
	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 00 to Dec 01 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 99 to Dec 00 %Change	Annual Average 000s of Jobs	Annual Average %Change	Dec 00 to Dec 01 %Change
Transportation and Public Utilities Employment												
New England	299.6	2.8	3.1	299.0	-0.2	-4.1	298.5	2.4	2.5	299.1	0.2	-2.9
Connecticut	79.7	2.8	3.7	78.6	-1.5	-4.2	79.2	2.2	2.6	79.4	0.2	-1.6
Maine	24.5	1.5	2.1	24.7	0.8	-1.2	24.3	0.7	-0.4	24.2	-0.2	-0.8
Massachusetts	144.3	3.2	3.7	144.8	0.4	-5.1	143.8	2.9	3.3	144.2	0.3	-4.8
New Hampshire	21.9	2.1	-0.9	21.6	-1.7	-4.1	21.9	1.9	-0.5	21.7	-0.9	-1.8
Rhode Island	16.8	3.1	2.4	17.1	1.9	-0.6	16.9	3.4	3.0	17.0	0.8	0.0
Vermont	12.4	0.7	1.6	12.2	-1.1	-2.4	12.4	1.0	2.4	12.5	1.0	0.8
Retail Trade Employment												
New England	1,251.9	2.3	1.7	1,253.1	0.1	-0.8	1,250.9	2.3	1.8	1,260.6	0.8	-0.1
Connecticut	282.4	1.8	0.6	279.6	-1.0	-1.2	282.2	1.7	1.0	283.2	0.3	-0.8
Maine	122.7	3.0	2.7	124.3	1.3	0.3	123.0	3.3	3.2	124.5	1.3	0.1
Massachusetts	571.1	2.1	2.2	572.3	0.2	-0.9	570.2	1.9	2.0	574.5	0.8	0.0
New Hampshire	131.6	2.4	1.4	132.5	0.7	-0.3	131.6	2.5	1.8	132.7	0.8	0.8
Rhode Island	88.7	5.1	2.2	89.1	0.4	-0.6	88.5	4.9	1.8	90.0	1.6	0.9
Vermont	55.4	1.9	1.5	55.4	-0.1	-1.6	55.3	1.8	1.6	55.8	0.8	-0.4
Wholesale Trade Employment												
New England	347.7	-0.1	-1.3	336.8	-3.1	-3.0	354.6	1.9	2.3	354.9	0.1	-1.4
Connecticut	81.5	-0.1	-2.6	78.6	-3.6	-2.0	83.1	1.8	1.7	81.8	-1.6	-3.4
Maine	27.1	0.1	-0.7	26.9	-0.7	-1.5	27.4	1.4	3.0	28.2	3.0	1.4
Massachusetts	173.2	-1.4	-2.5	167.6	-3.2	-3.1	178.0	1.3	2.3	178.2	0.1	-1.2
New Hampshire	32.6	2.9	4.1	32.5	-0.2	-0.9	32.9	3.7	3.8	33.1	0.7	-1.8
Rhode Island	20.6	4.5	5.1	18.8	-8.8	-10.6	20.5	3.9	3.0	20.8	1.5	1.0
Vermont	12.7	1.9	0.0	12.5	-2.1	-3.1	12.8	2.3	1.6	12.8	0.4	0.0
Finance, Insurance, and Real Estate Employment												
New England	478.2	1.2	2.1	487.7	2.0	0.7	476.8	0.9	1.0	481.0	0.9	0.5
Connecticut	141.5	1.0	1.0	142.5	0.7	0.0	141.2	0.8	0.4	141.8	0.4	0.1
Maine	32.4	3.2	3.4	33.6	3.8	2.7	32.3	3.0	3.4	32.4	0.2	-2.4
Massachusetts	228.3	0.9	2.1	232.7	1.9	0.4	227.6	0.6	1.0	230.6	1.3	0.9
New Hampshire	32.7	0.5	1.2	33.7	3.1	1.8	32.7	0.5	0.6	32.8	0.1	-0.3
Rhode Island	30.9	4.3	7.0	32.5	4.9	2.8	30.6	3.1	2.0	31.0	1.4	3.9
Vermont	12.4	-1.0	0.8	12.7	2.2	2.4	12.4	-1.5	-0.8	12.4	0.1	-0.8
Services Employment												
New England	2,377.5	3.8	3.8	2,408.1	1.3	-0.6	2,371.1	3.5	3.3	2,419.3	2.0	0.4
Connecticut	537.4	2.1	1.9	539.7	0.4	-0.6	537.1	2.1	1.8	540.5	0.6	-0.6
Maine	182.5	4.9	4.3	186.9	2.4	1.2	182.4	4.9	4.8	188.6	3.4	1.5
Massachusetts	1,214.4	4.4	4.5	1,228.6	1.2	-1.4	1,208.9	3.9	3.9	1,238.7	2.5	0.6
New Hampshire	187.6	5.0	5.8	191.6	2.1	-0.3	187.8	5.2	5.2	193.9	3.2	0.8
Rhode Island	163.7	2.8	2.0	168.3	2.8	2.7	163.4	2.6	2.2	165.5	1.3	0.3
Vermont	91.9	3.2	3.5	93.0	1.2	-0.4	91.5	2.8	1.4	92.1	0.7	0.0
Government Employment												
New England	963.4	2.3	1.3	973.3	1.0	1.7	963.4	2.3	1.3	969.9	0.7	1.4
Connecticut	241.9	2.9	1.2	243.8	0.8	2.1	242.0	2.9	1.6	244.5	1.1	2.2
Maine	99.6	3.1	2.9	101.8	2.2	3.8	100.0	3.4	3.4	101.3	1.4	1.9
Massachusetts	424.5	1.7	1.0	428.9	1.0	1.3	424.5	1.6	1.0	428.1	0.8	1.4
New Hampshire	83.5	2.4	1.0	84.0	0.6	1.2	83.0	1.8	-0.6	81.7	-1.6	-1.0
Rhode Island	64.4	1.7	1.3	64.7	0.4	0.3	64.4	1.5	-0.2	64.4	0.0	1.7
Vermont	49.4	3.6	1.6	50.0	1.2	2.0	49.6	3.9	3.1	49.9	0.8	0.8

Source: U.S. Bureau of Labor Statistics.