

Shifting Patterns of Regional Employment and Unemployment: A Note

The perception is widespread that the 1990–91 recession and the recovery to date differ in some important ways from earlier U.S. business cycles. This note examines some of the evidence regarding these differences, focusing on shifts in the regional pattern of employment and unemployment, especially for New England. As it turns out, many of the observed differences between this and earlier business cycles can be attributed to two key characteristics: While the recent recession, nationally, was not extraordinarily long or deep, the recovery has been unusually weak or gradual, especially in terms of employment. Moreover, this recession has displayed an industry pattern noticeably different from earlier recessions. Specifically, employment in manufacturing did not shrink as much as it typically does in recessions, while retailing and finance, insurance, and real estate were harder hit than usual. In New England, where this slowdown has been longer and deeper than usual, labor markets appear to be responding to the character and duration of the downturn in an unprecedented way. The New England experience may shed light on some much-discussed national developments.

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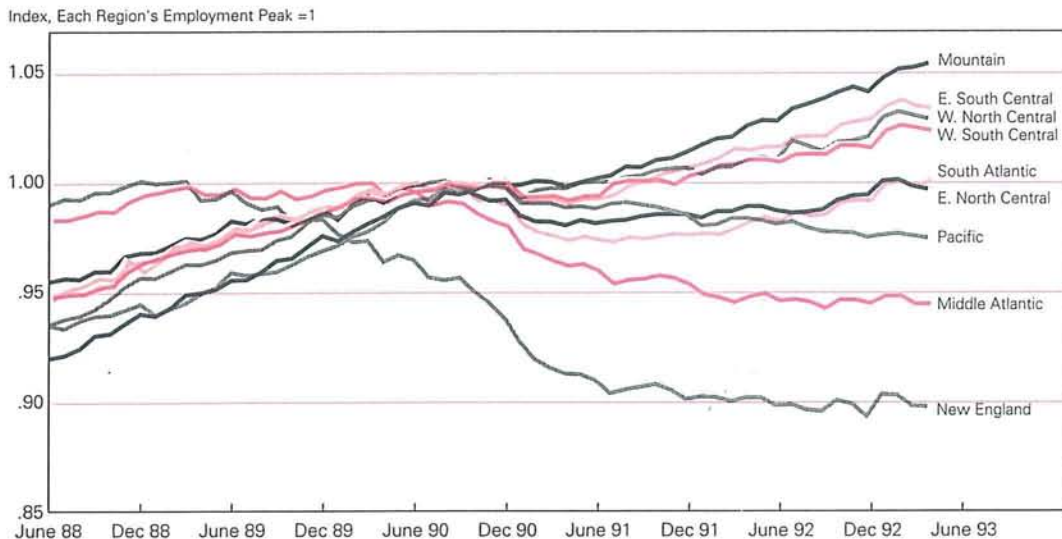
The Impact of the 1990–91 Recession on New England

New England's economy turned down sooner and suffered considerably greater overall job losses in the recent recession than any other region of the country (Figure 1), losing 10.5 percent of nonfarm jobs between February 1989 (when the region's downturn began) and December 1992 (New England's most recent employment trough). This prolonged decline contrasts quite sharply with the nation's loss of 1.7 percent of jobs over a shorter period from June 1990 through February 1992. Since that national employment trough, the nation has regained more jobs than it lost, but employment in New England has just recently begun to stabilize.

The recession came later to the Middle Atlantic states, second

Figure 1

*Nonfarm Payroll Employment during the 1990 - 91 Recession,
by Census Region*



Source: U.S. Bureau of Labor Statistics.

hardest-hit in this recession. That region lost over 5 percent of peak 1990 employment by the fall of 1992, when the job count stabilized. The economy worsened most recently in the Pacific region, which has continued to lose employment as the rest of the nation, other than the Northeast, has inched upward. Thus, the latest recession is bi-coastal, as was the boom of the 1980s. (See the Appendix for definitions of the Census regions.)

The downturn brought with it a more than doubling of the unemployment rate in New England; joblessness rose over 5 percentage points, from around 3 percent in most of 1988 to a high above 8 percent in late 1992 (Figure 2). Nationally, unemployment rose from 5 to 7.7 percent. This moderate increase in unemployment contrasts sharply with the nation's experience in the last recession (1981-82), when the U.S. unemployment rate exceeded 10 percent.

Regional Patterns of the New Unemployment¹

While the national increase in unemployment has been relatively mild in the recent recession, a

greater share of the job loss has been *permanent* than is typical in recessions. "Permanent" job losses are defined as job losses other than layoffs; that is, the unemployed in this category have been told not to expect a callback to their last job. Recessions are typically dominated by rising layoffs—temporary job losses—but layoffs were lower than usual in the recent recession.

New England had the highest fraction of permanent job losers in its labor force in 1991, and again in 1992 (Figure 3).² With 8 percent of the New England labor force unemployed in 1992, over one-half of the unemployed had lost a job to which they could not expect to be recalled, and were still looking.

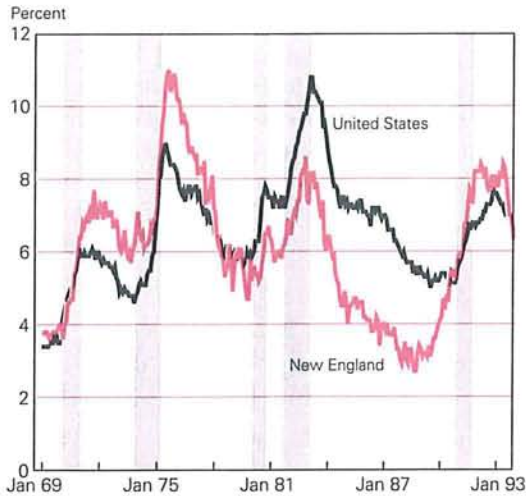
Those who are let go, not expecting to be called back, typically experience a considerably longer du-

¹ Some of the discussion in this section adds regional detail to U.S. findings reported by James L. Medoff in "The New Unemployment" (1992).

² Data reporting the characteristics of the unemployed at the regional or state level are released only on an annual basis, in the U.S. Bureau of Labor Statistics report, *Geographic Profile of Employment and Unemployment*.

Figure 2

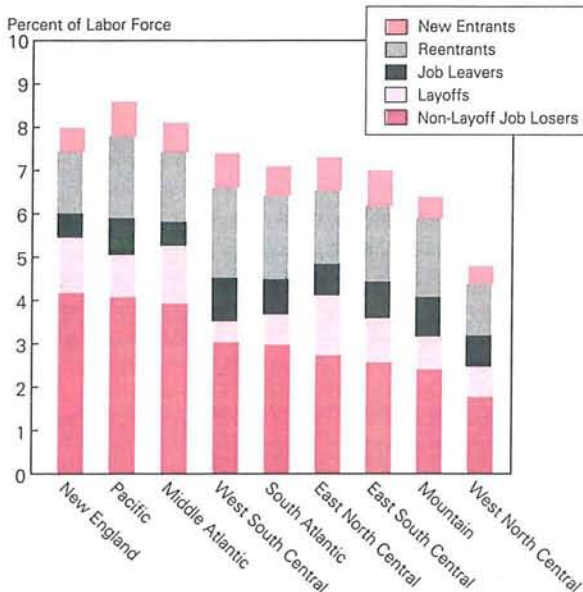
Unemployment Rate



Source: U.S. Bureau of Labor Statistics.

Figure 3

Reasons for Unemployment and Rate, 1992



Source: U.S. Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment*.

Table 1
Duration of U.S. Unemployment, by Reason for Unemployment
Annual Averages

Reason for Unemployment	Percentage with Unemployment Duration of:			
	15 Weeks and Over		Less than 5 Weeks	
	1992	1983	1992	1983
All Unemployed, 16 and Older	35.7	39.3	34.9	33.3
Job Losers on Layoff Other "Permanent"	27.0	37.2	43.5	36.0
Job Losers	49.3	52.3	22.6	21.5
Job Leavers	28.9	30.5	41.3	40.2
Reentrants	25.0	26.9	44.2	45.2
New Entrants	20.9	25.0	47.7	44.7

Source: U.S. Bureau of Labor Statistics, *Employment and Earnings*, January 1993, p. 187, and January 1984, p. 170.

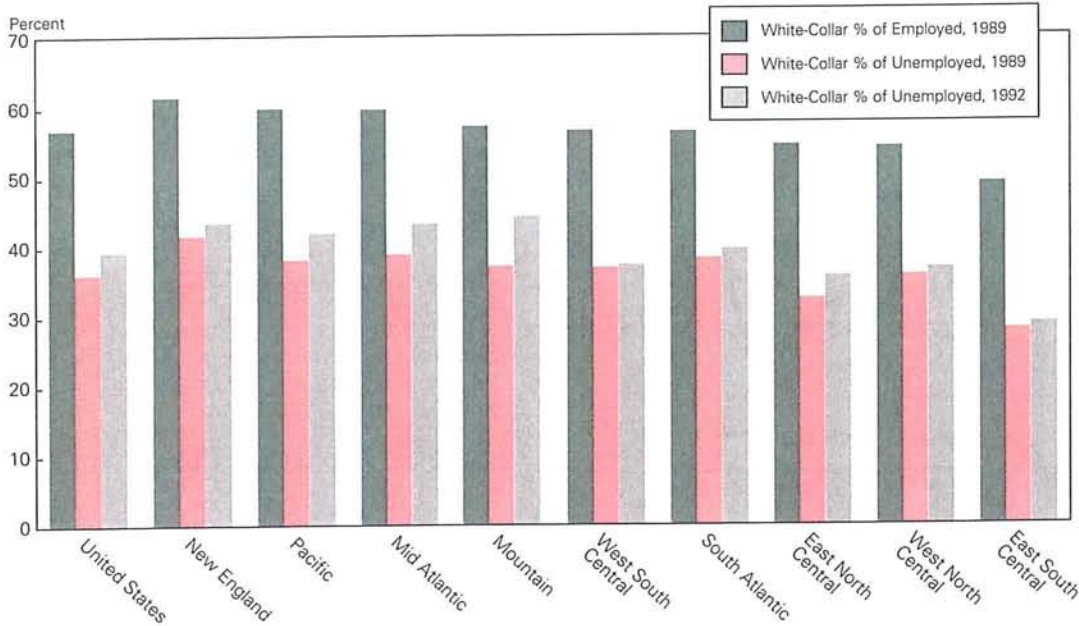
ration of unemployment than those who are laid off. Nationwide, almost half of the non-layoff job losers spent 15 or more weeks unemployed in 1992, while a smaller 27 percent of those laid off spent that long (Table 1). In 1983, when layoffs were more widespread, 37 percent of those laid off spent 15 or more jobless weeks, but still more than half of the "other" job losers also had a long jobless spell.

New England's greater permanent job loss in 1992 undoubtedly reflects, at least in part, the region's long-term loss of manufacturing jobs, which stretches back to 1985. Over the past eight years, the region has lost 29 percent of its 1984 manufacturing jobs. Having begun well before the recent recession, these losses are not cyclical and hence are not likely to be recovered as the economy resumes growth.

Figure 3 also shows that the Pacific region follows closely after New England in the percentage of its labor force unemployed by reason of a permanent job loss. In contrast with New England, manufacturing employment in the Pacific region was *growing* before the recession, and the recession came later there, so its job losses might have been expected to be cyclical rather than secular, taking the form of layoffs rather than permanent job losses. Nonetheless, these data show that a sizable fraction of employers in the West do not plan to rehire the workers they are letting go. A key factor in the economy on the West Coast as well as in New England is defense contracts,

Figure 4

White-Collar Fraction of Jobs and Unemployment



Source: U.S. Bureau of Labor Statistics, *Employment and Earnings* and *Geographic Profile of Employment and Unemployment*.

and defense cutbacks may be one explanation for the increasingly permanent nature of job loss in the last few years. Recessions do not typically affect defense contractors, but this time the nation was stepping up defense cuts in response to the end of the Cold War just as the economy moved into recession. Another industry concentration common to New England and the Pacific region is computers, an industry that has been restructuring heavily in recent years.

A second, and related, phenomenon in this recession has been an increase in the *white-collar* fraction of job losses. The white-collar fraction of the unemployed increased in all the regions from 1989 to 1992 (Figure 4). Nationally, the fraction of the unemployed wearing white collars rose from 36 percent in 1989 to 39 percent in 1992. Typically in recessions, blue-collar unemployment rises more than white-collar. In the early 1980s, for example, the white-collar fraction of the unemployed fell 2 percentage points, from 33 percent of U.S. jobless individuals in 1979 to 31 percent in 1983.

This shift in the mix of unemployment might be cause for comfort (except among white-collar workers themselves) if, as some observers assume, the relatively well-educated and flexible white-collar unem-

Table 2
Duration of U.S. Unemployment, by Occupation
Annual Averages

Occupation	Median Duration (Weeks)		Number Unemployed (000)	
	1992	1983	1992	1983
All Unemployed, 16 and Older	8.8	10.1	9,384	10,717
Experienced Unemployed:				
White Collar				
Managerial and Professional	13.1	11.8	1,007	795
Technical, Sales, and Administrative	9.2	9.1	2,268	2,116
Service Occupations	6.9	8.7	1,420	1,697
Blue Collar				
Precision Production, Craft, and Repair	10.8	12.9	1,273	1,466
Operators, Fabricators, and Laborers	9.5	13.6	2,093	2,955
Farming, Forestry, and Fishing	6.1	7.4	305	407
No Previous Work Experience	4.9	6.2	969	1,218

Source: U.S. Bureau of Labor Statistics, *Employment and Earnings*, January 1993, pp. 188-89, and January 1984, pp. 171-72.

ployed typically find it easier than the blue-collar unemployed to secure a new job after termination. But this is not so in the current recession. White-collar occupations were the only occupational groups to suffer longer average durations of unemployment in 1992 than in 1983 (Table 2). Indeed, managers and professionals are taking about as long to find a new job in 1992 as blue collars did in 1983.

New England's Growing Employment "Discrepancy"

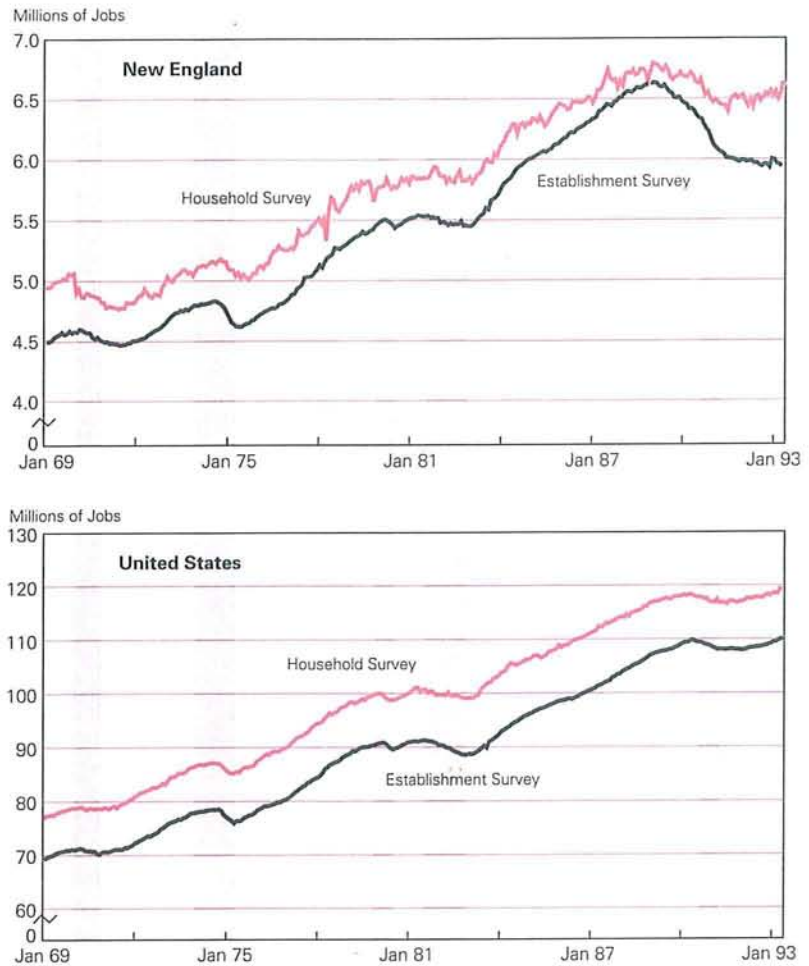
The basic employment data available at the regional level hint at one other job market development, specifically in New England, that probably grows out of these changes in the permanent and white-collar fractions of unemployment. Figure 5 plots the two available measures of employment for New England (upper panel) and the United States (lower panel); shaded areas are recessions. The top line in each panel is the number of people reporting themselves employed in the household survey used to estimate unemployment rates. The lower line is the number of employees reported by establishments.

The key difference between these measures is that the establishment survey includes only wage and salary employees on the payrolls of nonfarm establishments, while the household survey also includes proprietors, the self-employed, and unpaid volunteers and family workers. They also differ in that when one person holds two jobs, the establishment survey will count the two jobs separately while the household survey will count one employed person.³

The puzzle in these data is the very noticeable divergence between the two measures during the recent downturn and early recovery in New England. This divergence is not matched in other recessions or

Figure 5

Employment Data Comparisons



Source: U.S. Bureau of Labor Statistics.

recoveries in New England's history or in the national data. The household survey employment measure for

³ Several other differences between the two counts are much smaller in magnitude for New England: (1) The household survey refers to place of residence while the establishment survey is by place of work. (2) The payroll jobs of those 15 years old and younger are counted in the establishment survey but the household survey data refer to persons 16 and older. (3) People with a job but not at work and unpaid for the entire pay period surveyed, such as strikers, are counted as employed in the household survey but not in the establishment data. (4) Farm workers are included in the household survey but not in the establishment figures, which refer to nonagricultural payroll jobs.

Table 3
Employment Data for New England
 Thousands

Date	Establishment Payroll Employment	Household Survey				Labor Force Participation Rate (Percent)	
		Number of Employed Persons	Civilian Labor Force	Number Unemployed	Unemployment Rate (Percent)		
Employment Peak: February 1989	6,633.2	6,791.7	7,007.2	215.5	3.1	10,085.0	69.5
Household Survey Employment Trough: August 1991	6,007.7	6,397.0	6,967.2	570.2	8.2	10,172.0	68.5
Establishment Payroll Employment Trough: December 1992	5,934.3	6,530.0	7,123.0	593.0	8.3	10,236.0	69.6
Most Recent Month: May 1993	5,937.2	6,536.0	7,006.0	470.0	6.7	10,243.0	68.4
Change, February 1989 to August 1991							
Number	-625.5	-394.7	-40.0	354.7	5.1 ^a	87.0	-1.0 ^a
Percent	-9.4	-5.8	-0.6	164.6		.9	
Change, February 1989 to December 1992							
Number	-698.9	-261.7	115.8	377.5	5.2 ^a	151.0	.1 ^a
Percent	-10.5	-3.9	1.7	175.2		1.5	
Change, February 1989 to May 1993							
Number	-696.0	-255.7	-1.2	254.5	3.6 ^a	158.0	-1.1 ^a
Percent	-10.5	-3.8	-0.0	118.1		1.6	

^aPercentage point change.

Source: U.S. Bureau of Labor Statistics; Federal Reserve Bank of Boston, *New England Economic Indicators* data base.

New England declined less precipitously at the start of the downturn and then began rising in September 1991, while the establishment-based measure did not pick up noticeably until January 1993—more than a year later. According to the establishment data, close to 700,000 jobs have been lost in the region since early 1989; by contrast, the household data indicate a net decline of only 256,000 in the number of employed individuals (Table 3). What accounts for this 440,000 job discrepancy?

One of the reasons the two measures diverged is undoubtedly dual job-holding. During the boom, many New Englanders took on two jobs; as the slowdown got underway in the region in 1989 and 1990, the loss of some of those second jobs would have caused a greater falloff in payroll employment. Indeed, after shrinking in the region's boom years, 1984 to 1988, the gap between the two employment

measures returned to its historical average in early 1991. But then it kept expanding.

Two plausible explanations for this continued and more pronounced widening in New England recently are statistical discrepancies between the two surveys and growing self-employment and unpaid volunteer and family work.⁴ With regard to the

⁴ The other factors outlined in the preceding footnote might influence the expansion of the gap between the two measures as follows: (1) Increased commuting by New England residents to jobs outside the region might be important if the economies of New York and Canada were booming, but both have actually been slow. (2) When 14- and 15-year-olds lose their payroll jobs in the slowdown, it decreases the establishment job count but leaves the household tally unchanged; they are a very small fraction of all workers, however. (3) Job actions are not likely to increase in importance during recession. (4) The gap would expand if the farm sector were increasing relative to the nonfarm economy, but only very slightly since farm workers account for a below-average

former, data collection procedures differ because of the nature of the two surveys, so random factors or systematic biases may cause them to diverge. In particular, the establishment survey is thought to miss much of the employment growth that occurs in new, small, and often fast-growing firms. To the degree that this occurs, however, annual benchmark revisions to the payroll data (based on the establishment employment "universe" rather than a sample) should be expected to erase some of the gap. Nevertheless, the payroll employment data for 1989, 1990, and 1991 have already been revised twice without eliminating the gap. Next spring, the 1992 data will be revised for the second and final time and the 1993 data will be revised for the first time. As is likely for the 1993 data, the first 1992 revisions were positive, which is consistent with the hypothesis that the initial payroll survey estimates missed some growth in small businesses as the regional economy began to stabilize. Nevertheless, even after the revisions, the gap continued to grow in 1992. Another form of data discrepancy might be attributable to misreporting by some individuals let go from payroll jobs who are loath to admit to survey interviewers that they are unemployed.

Unpublished data suggest that the number of self-employed individuals in New England grew during the last few years, but only enough to account for a small fraction of the observed growth in the gap. Nonetheless, as payroll jobs continue to decline, the fraction of the region's employment accounted for by the self-employed has risen noticeably, and anecdotes about New England's "new" self-employed are widely told. Self-employment might represent a growing fraction of all employment for two reasons. One, the industries that are growing are those in which self-employment is more important: Both construction and services industries (excluding private household services) have above-average fractions of self-employed workers (Table 4), and those are the only two broad industry categories in which New England's employment has grown in the last year. While contributing, however, this shift in industry mix appears to account for very little of the gap, under reasonable assumptions.⁵

The second explanation for increased self-employment is that some of the people let go by establishments, unable to find another payroll job,

fraction of economic activity in New England. In sum, some of these survey differences may have contributed to New England's growing gap, but none of them could be responsible for more than a very small fraction of the observed expansion.

Table 4
U.S. Self-Employment, by Industry, 1992

Industry	Total Employed ^a (000)	Self-Employed (Percent)
All Civilians in Nonagricultural Industries	114,390	7.5
Mining	664	3.5
Construction	7,013	20.9
Manufacturing	19,972	2.0
Transportation and Public Utilities	8,245	4.1
Wholesale and Retail Trade	24,354	7.3
Finance, Insurance, and Real Estate	7,764	8.1
Services	40,758	9.8
Private Households	1,127	.9
Other Service Industries	39,631	10.1
Business and Repair	6,553	18.3
Personal, except Private Household	3,273	20.9
Entertainment and Recreation	1,957	12.1
Professional	27,677	6.6
Forestry and Fisheries	172	27.3
Public Administration	5,620	.0

^aEmployed civilians in nonagricultural industries; annual averages. Source: U.S. Bureau of Labor Statistics, *Employment and Earnings*, January 1993, p. 202.

have gone into business for themselves. Sometimes they have embarked on a new line of work; sometimes they are doing the same kind of work as before, but now on a free-lance basis. At least a few firms in the region are known to have terminated a sizable number of workers and then hired some back as consultants or independent contractors doing the same work. In addition to these firm-initiated shifts, skilled professionals, like computer or software engineers laid off by one of the big New England computer firms, are consulting on their own time and initiative, and express no interest in payroll employment again. Some former payroll employees have started small "mom and pop" establishments, and others may be unpaid family workers⁶ in those small

⁵ A calculation using the data shown in Table 4 and New England's establishment employment mix in the third quarter of 1991 (when the household survey employment numbers started to grow) and the first quarter of 1993 suggests that growth in construction added almost 2,000 to self-employment and, hence, to the gap, while growth in services added about 6,000 more. The total gap expanded by 130,000 over that six-quarter period, however.

⁶ Unpaid family work is likely to pick up in hard times as family members lose payroll jobs. Unpaid family workers are counted as employed (but not self-employed) in the household survey, but they are not included in the payroll count.

start-ups or ongoing family enterprises. In any case, these self-employed and unpaid individuals are not on establishment payrolls but are nonetheless averting unemployment.

Why might employers be shifting away from permanent payroll employees and toward free-lancers? Two reasons come to mind, both of which raise concerns about the future evolution of the region's labor market. First, firms might take this course to shift the volatile or uncertain aspects of the workload outside the firm and onto the worker. This route allows the firm to avoid or at least minimize the sometimes-heavy financial and institutional costs of future layoffs. Second, the cost of fringe benefits moves from the firm to the consultant/employee with this kind of arrangement. While consultants' fees at any time could reflect the higher costs the loss of fringe benefits imposes on them, the consultants (rather than the firm) bear the risk of uncertain future increases in the costs of such fringe benefits, particularly health care. And in tough economic times, free-lance compensation may be lower.

Why would this trend show up more in New England than in the nation? To the degree that loss of second jobs and growing self-employment are the reasons for New England's growing gap, the simplest explanation is that the recession has been so much longer and deeper here that (a) employers evaluated more seriously the structure of their operations and (b) former employees had fewer alternatives. In 1991, New England had the highest unemployment rate among all regions for both white-collar and blue-collar workers; at the same time, help-wanted advertising hit an all-time low, and consumer confidence in the region was extremely weak.

Some Explanations and Implications

All of these changes in the labor market—more permanent job losses, more white collar unemployment, and, at least in New England, apparently sizable declines in dual job-holding and an increase in self-employment—suggest the labor market operated differently in this recession. One part of the explanation is that this recession had a very different industry pattern from earlier recessions. Nationwide, manufacturing was less hard hit this time around. Indeed, manufacturing's share of national unemployment in 1992 was in line with its share of the labor force; usually its share of unemployment is higher in recessions (Table 5). Meanwhile, trade and finance, insur-

Table 5
Industry Composition of U.S. Labor Force and Unemployed
Percent

Industry	1992		1983	
	Labor Force	Unemployed	Labor Force	Unemployed
Construction	6.3	13.7	6.7	12.4
Manufacturing	22.2	22.4	27.0	30.3
Transportation and Public Utilities	7.1	5.1	7.1	5.2
Trade	25.8	28.0	26.1	26.0
Finance, Insurance, and Real Estate	7.6	4.5	7.5	3.4
Services	30.2	25.5	24.3	20.5

^aBase for percentages is experienced nonagricultural wage and salary civilian labor force or unemployed; mining is included but is not shown separately.

Source: U.S. Bureau of Labor Statistics, *Employment and Earnings*, January 1993 and January 1984.

ance and real estate shrank more than is typical. Presumably these differences explain why some observers characterized this recession as debt-induced or a financial restructuring and others opined that the lack of consumer confidence—and consequent weakness in the retail sector—was not consistent with the relative health of the rest of the economy.

Higher-than-usual white-collar unemployment follows rather directly from these changes in the industry concentration of the slowdown. The industry pattern probably also explains at least some part of the higher share of permanent job loss as well, since layoffs rather than terminations are more common in manufacturing, an industry more accustomed to wide cyclical swings in demand.

Furthermore, in New England, this "recession" was much more than a recession; the region has clearly been making structural adjustments as well as participating in the national business cycle. While there is no simple explanation for the region's difficulties, most analysts agree that part of the story is that costs—wages, land and housing costs, consumer prices—got out of line during the 1980s boom period, reducing the region's attractiveness to industries and firms that were not directly benefiting from the boom. Consistent with the possible importance of relative costs as an explanation for the depth of the recession is the observation that the other regions

hardest hit in this recession, the Middle Atlantic and Pacific, also had above-average wages and prices.⁷

Contract payroll wages and benefits are notoriously "sticky" in a downward direction, even in difficult economic times. Data currently available do not reveal whether recently self-employed workers in New England are compensated (including fringe benefits) more or less than comparable payroll employees. The use of independent consultants clearly gives the employer more flexibility to adjust hours and hence weekly or monthly compensation, compared with the use of full-time payroll employees. And some formerly unemployed individuals may be glad enough to find a job that they accept lower pay than they received as establishment employees, even without considering fringe benefits. That is, hiring outside the payroll track may provide an alternative way for firms to reduce otherwise "sticky" compensation.

A key question, looking forward, is whether these apparent changes in the operation of the job market will be reversed as the recovery continues to unfold. To a large degree, the prognosis depends on the pace and nature of that recovery. If employment growth, nationally, remains sluggish and unsteady, it seems possible that New England's "mixed signals," if attributable to its earlier and deeper recession, will spread. Indeed, initial signs can be seen in recent

employment data for California, which (as in New England) show an expanding number of employed persons but ongoing declines in establishment payroll jobs.

Whether "white-collar" and "permanent" unemployment will revert to their usual levels when aggregate demand finally picks up enough to bring improvement in the national unemployment rate depends on whether this recession's industry pattern reflects simply the idiosyncrasies of its genesis, including difficulties in financial services, real estate, computers, and defense industries, or deeper ongoing changes in the economy. One possibility, for example, is that the relatively greater slowdown in nonmanufacturing grew out of continued economy-wide "unbundling"—more contracting out, from legal services, design and engineering, protection, and consulting, to temporary employment agencies. Another possible contributor to employment downsizing and restructuring is the increased use of computers across many industries. Such secular shifts, if that is what they are, are not likely to be fully reversed, even as the economy resumes steady growth.

⁷ The Middle Atlantic, New England, and Pacific regions had the highest private sector wages and salaries per employee in 1988 and 1991, even after adjusting for industry mix.

Appendix
List of States in Census Regions and Divisions

Region and Division	State	Region and Division	State
Northeast:		South: continued	
New England	Connecticut	East South Central	Alabama
	Maine		Kentucky
	Massachusetts		Mississippi
	New Hampshire		Tennessee
	Rhode Island		
	Vermont	West South Central	Arkansas
Middle Atlantic	New Jersey		Louisiana
	New York		Oklahoma
	Pennsylvania		Texas
Midwest:		West:	
East North Central	Illinois	Mountain	Arizona
	Indiana		Colorado
	Ohio		Idaho
	Michigan		Montana
	Wisconsin		Nevada
West North Central	Iowa		New Mexico
	Kansas		Utah
	Minnesota		Wyoming
	Missouri		
	Nebraska	Pacific	Alaska
	North Dakota		California
	South Dakota		Hawaii
South:			Oregon
South Atlantic	Delaware		Washington
	District of Columbia		
	Florida		
	Georgia		
	Maryland		
	North Carolina		
	South Carolina		
	Virginia		
	West Virginia		

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