

The Case of the Reluctant Recovery

William E. Cullison

Two things are widely believed about [the recession that began in 1990]: first, that it is more severe than others, and second, that it has weighed especially heavily on the middle class. The first proposition is false; the second cannot be known now What stands out about the 1990 recession is that although by almost every objective measure it is rather mild, there is, according to many reports, unusual anxiety and fear about it.

—Herbert Stein (1992)

INTRODUCTION

Characteristics of recessions, and the recoveries that follow them, vary. The recession that began in 1990 was, as Herbert Stein (1992) observes, relatively mild. On the other hand, the recession's effects have been unusually persistent; the first year of recovery from the recession was unusually weak—some say nonexistent. The recession's breadth, also, was unusually large. Industries such as those within the so-called service-producing industry group that were largely unaffected by past recessions suffered in this recession along with the so-called cyclical industries like manufacturing and construction.

The broad scope of the 1990-91 recession and the economy's delayed recovery from it are at the heart of the "unusual fear and anxiety" noted by Stein. Some observers have called the 1990-91 recession a white-collar, or middle management, recession. Usually coupled with these observations is the quite pessimistic view that employment may not recover from the 1990 downturn for years, because the malaise stems from basic institutional changes in U.S. businesses. These organizational and managerial changes are designed to promote efficiency through restructuring and downsizing.

There is much anecdotal evidence that middle managers and skilled staff workers¹ were affected

¹ The distinction between white-collar and blue-collar workers, while convenient, is an anachronism in the U.S. economy of the 1990s. In the informal service-oriented economy of the 1990s, collar colors mean very little. Highly skilled computer software developers and other researchers are not noted for their conformity to dress code. Also, production workers in many of the services do wear white collars, but their skills and incomes are lower than those of many workers in many traditional blue-collar jobs. The U.S. Department of Labor recognizes these changes in the habits of the work force and has discontinued publishing employment data on white- and blue-collar workers. This paper will, therefore, distinguish between (1) supervisory and nonproduction workers and (2) nonsupervisory and production workers rather than between white- and blue-collar workers.

unusually severely by the 1990 downturn. Sylvia Noser, for example, quoted Charles Albrecht, Executive Vice President at Drake Beam Morin, the nation's largest outplacement firm, that "unlike the early 80's, we're seeing accountants, engineers, lawyers, financial types, people from all across the spectrum" (Noser, 1992, p. D4).

Upon examining the data it becomes clear that few groups have been immune from the effects of the 1990-91 economic downturn. However, layoffs of normally recession-proof professionals such as accountants, engineers, lawyers, financial types, and middle managers provide support for the hypothesis that firms have been making basic structural changes in the 1990-92 period.

Sylvia Noser (1992) also contends that the 1990-92 recession and recovery in the services industry was coincident with a basic restructuring of service-producing firms necessitated by overexpansion and runaway costs prevalent in the 1980s, installations of labor-saving technologies, and increases in competition. On the other hand, Stephen McNees (1992), in an article placing the 1990-91 recession in historical perspective, concludes that the 1990-91 recession was not particularly unusual. McNees observes that "the most unusual feature of the 1990-91 recession may well be that it was both preceded and followed by periods of sub-par growth, so that the 'growth recession' that began in 1989 has persisted for nearly three years" (p. 21).

If the current experience is a cyclical happening rather than an economy-wide change in business practices, the widespread belief that middle managers and highly skilled staff workers became superfluous in the late 1980s would be erroneous. After all, if firms needed the services of such workers before the downturn, they should need them equally as much when the economy recovers.

This paper first examines the empirical characteristics of the recovery in comparison to the past recessions using payroll employment (establishment) data. The study then examines the argument that the slowness of the current recovery stems from a change in the structure of the U.S. economy.

CHARACTERISTICS OF THIS AND PAST EMPLOYMENT CYCLES

A series of charts showing payroll employment² as a percentage of recession troughs is used to compare the decline and recovery of employment in the

² The payroll employment data are taken from the Department of Labor's establishment survey. These data are thought by many business economists to be more accurate than the employment data derived from the household survey. In addition, the use of the establishment data allows comparisons of the effects of the recessions on employment by industry.

current recession to declines and recoveries in the seven other postwar cycles. All of the charts begin by showing data 12 months prior to the trough and end with data 12 months after the trough. The trough of the 1990-92 recession is assumed to be April 1991.³

One chart depicts overall payroll employment. Another shows the employment of supervisory workers, and a third, that of production workers. Still others show employment by industry. Table 1 provides information on various components of employment 12 months before and 12 months after the April 1991 trough compared to an average of past cycles.

³ Dating the trough of the current recession in April 1991 was quite common throughout the second half of 1991, but the behavior of the economy since April 1991 has been such that some observers have been reevaluating their analyses. It still appears, however, that the employment decline leveled off in April 1991, so that month remains the most likely candidate.

Table 1

Industry	Cycle Trough	12 Months Before (percent of trough)	12 Months After (percent of trough)
All Industries	1991:4	101.7	100.2
	Average*	102.2	103.1
Private Supervisors	1991:4	100.7	99.0
	Average†	99.7	102.2
Private Production Workers	1991:4	102.4	100.3
	Average†	103.0	103.3
Construction	1991:4	111.0	97.9
	Average*	107.1	103.1
Manufacturing	1991:4	104.5	99.1
	Average*	109.0	103.6
Durables Manufacturing	1991:4	105.9	98.0
	Average*	112.1	104.7
Transportation & Public Utilities	1991:4	100.5	99.7
	Average*	103.4	100.2
Service-Producing	1991:4	100.5	100.6
	Average*	99.2	102.8
Finance, Insurance, & Real Estate	1991:4	100.6	99.9
	Average*	97.7	103.1
Retail Trade	1991:4	102.2	99.5
	Average*	100.4	103.3
Business & Health Services	1991:4	99.8	102.0
	Average*	97.6	104.2
Federal Government	1991:4	106.8	101.1
	Average*	100.6	100.5
State & Local Government	1991:4	98.8	101.0
	Average*	96.7	102.2

* The average used for comparison is the average of the seven post-1953 recessions.

† Average employment indexes in the four post-1969 recessions.

Total Payroll Employment

Chart 1 provides an overall view of the effects of recessions on employment. The chart shows, as McNees (1992) observes, that the downturn after the July 1990 peak was not unusual. It also shows, as Stein (1992) notes, that the contraction from July 1990 to April 1991 was relatively mild.

The chart also shows, however, that the 1990-91 employment recovery has been very different from past employment recoveries. In fact, payroll employment (at 100.2 percent of trough in April 1992) can hardly be said to have recovered at all. Employment recovered much more rapidly in the other postwar recessions, when, after 12 months, it ranged from a low of 102 percent of trough to a high of 104.7 percent. Employment after 12 months averaged 103.1 percent of trough for the other seven postwar cycles.

In percentages, the differences in the rates of recovery may seem relatively small. Translated into jobs, however, they are not small. For example, by

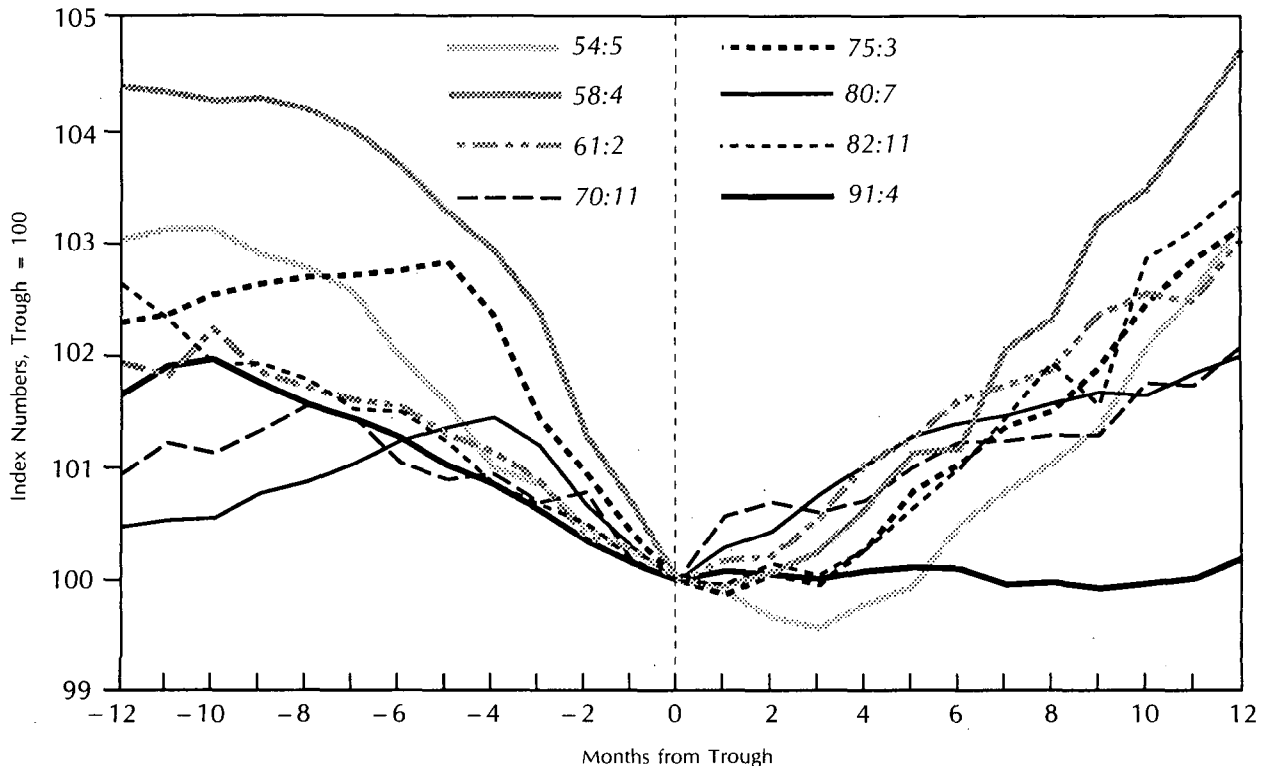
April 1992, there were only 295,000 more jobs than there were in April 1991. If the current recovery had been as strong as the weakest prior recovery (1970-71), however, employment would have increased by 1.9 million jobs since April 1991. Moreover, if the 1990-91 employment recovery had been as strong as the average of past cycles, there would have been 2.9 million more jobs by April 1992. Given these comparisons, it is little wonder that there has been widespread fear that the U.S. economy has lost its resilience.

On the other hand, as noted earlier, the employment contraction in this recession was relatively mild. As Chart 1 also shows, payroll employment fell by only about 1.5 percent to reach its April 1991 trough. This was about the same percentage decline as the declines registered in the relatively mild recessions of 1970 and 1980. Compare the 1.5 percent decline to the declines in the four more severe recessions: employment fell 4.4 percent in 1957-58, 3.1 percent in 1953-54, 2.8 percent in 1974-75, and 2.7 percent in 1981-82.

Chart 1

PAYROLL EMPLOYMENT

(1954, 1958, 1961, 1970, 1975, 1980, 1982, and 1991 Troughs)



Supervisory Workers and Production Workers

As noted at the outset, a number of observers have attributed the delayed recovery in the current recession to structural changes in the economy, namely, permanent cuts by firms in nonproduction and supervisory employees. Chart 2 shows that in the current recession, private supervisory/nonproduction employment fell slightly through most of the 24-month period, reaching 99 percent of trough by April 1992. On the other hand, nonproduction employment in the four post-1969 recessions, the period for which data are available, averaged about 99.7 percent twelve months prior to the trough and 102.2 percent twelve months after the trough. Thus, the recovery for nonproduction and supervisory workers has been weaker than usual.

Chart 3 shows employment of private production workers in post-1969 recessions. These workers apparently fared no better than supervisory workers in the current recovery. Jobs for production workers fell from 102.4 percent of trough in April 1990 to 100.3 percent of trough two years later, while production jobs in the other four post-1969 recessions averaged 103 percent twelve months before trough and 103.3 percent two years later.

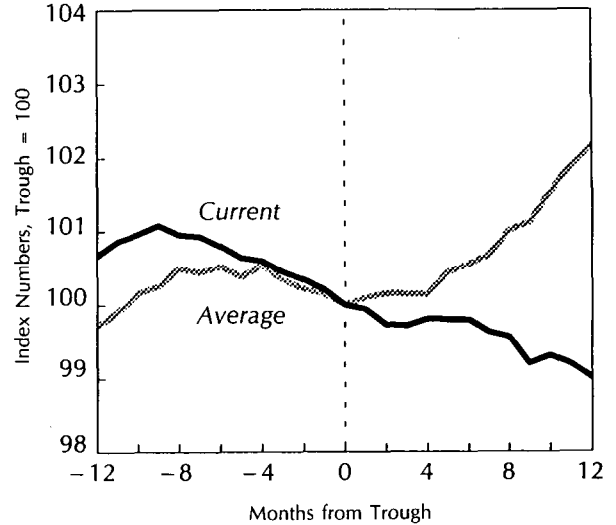
Employment by Industry

Chart 4 shows the plight of construction employment. The series in the current recession began about 111 percent of trough and ended about 97.9 percent of trough. In comparison, construction employment in the other post-1969 recessions averaged 107.1 percent of trough twelve months prior to the trough and 103.1 percent twelve months after.

Chart 5 shows that manufacturing employment has also not recovered well relative to past recessions. Twelve months before April 1991, manufacturing employment was 104.5 percent of trough. Twelve months after, it was still only 99.1 percent of trough. The average for the four post-1969 recessions was 109 percent of trough 12 months before and 103.6 percent of trough 12 months after. Employment in durable goods manufacturing, normally a cyclical industry, also has shown no recovery whatsoever, and in fact is continuing to decline.

Chart 6 shows that while the employment recovery in the transportation and public utilities industries has not been substantially different from past recoveries, the contractionary period prior to the trough was unusually mild. Employment in that period fell only

Chart 2
SUPERVISORY EMPLOYMENT
Average of Cycles
Around 1970, 1975, 1980, and 1982
Troughs versus Current Cycle



about 0.8 percent, whereas the average employment decline in the past recessions over the year before the trough was 3.6 percent.

Chart 7 shows that the recovery of employment in the service-producing industries was weaker than usual in the current recession. Service-producing employment was 100.6 percent of trough 12 months

Chart 3
NONSUPERVISORY EMPLOYMENT
Average of Cycles
Around 1970, 1975, 1980, and 1982
Troughs versus Current Cycle

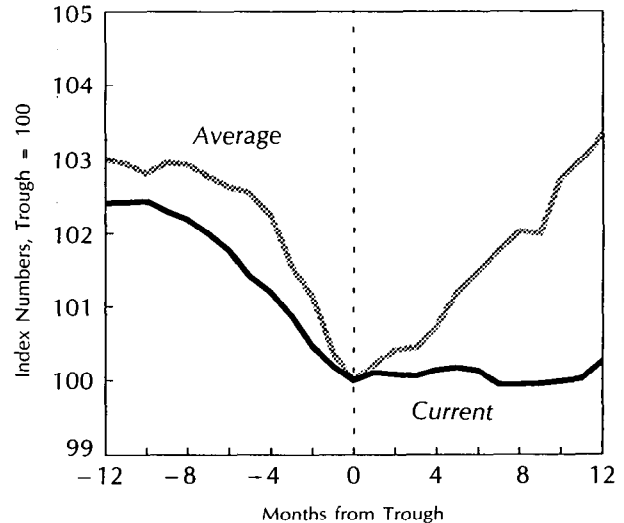


Chart 4

CONSTRUCTION EMPLOYMENT
Average of Seven (Pre-1990) Cycles
Around Troughs versus Current Cycle

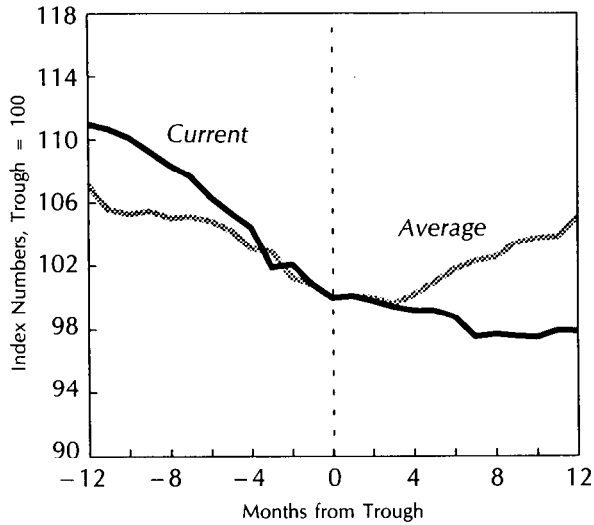
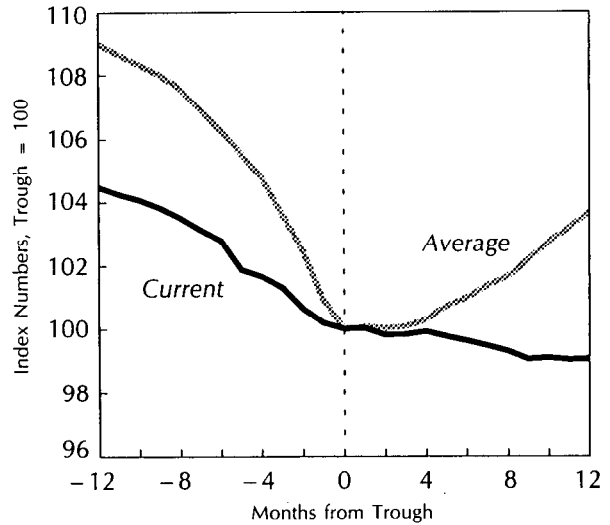


Chart 5

MANUFACTURING EMPLOYMENT
Average of Seven (Pre-1990) Cycles
Around Troughs versus Current Cycle



after the most recent trough. The average for the four post-1969 recoveries, however, was 102.8 percent of trough after 12 months.

Chart 8 depicts employment in the finance, insurance, and real estate industries. Twelve months after the trough of the current recession, employment remained at 99.9 percent of trough. In the other

post-1969 recessions finance, insurance, and real estate employment averaged 3.1 percent above trough after 12 months.

As in finance, insurance, and real estate, employment in retail trade remained slightly (0.5 percent) below trough after 12 months. By contrast, retail employment after 12 months averaged 103.3

Chart 6

TRANSPORTATION AND UTILITIES EMPLOYMENT
Average of Seven (Pre-1990) Cycles
Around Troughs versus Current Cycle

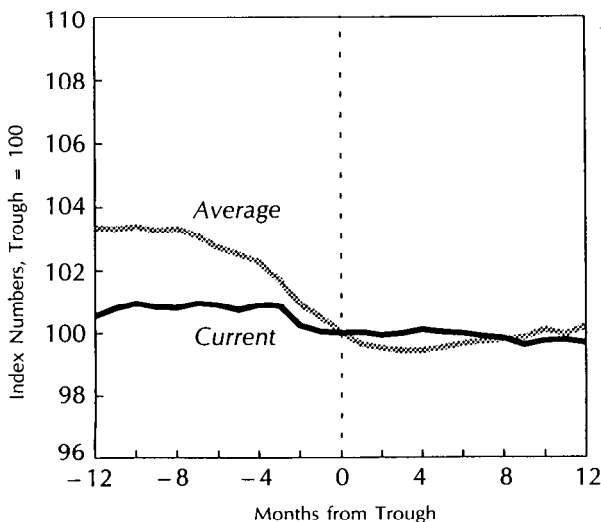


Chart 7

SERVICE-PRODUCING EMPLOYMENT
Average of Seven (Pre-1990) Cycles
Around Troughs versus Current Cycle

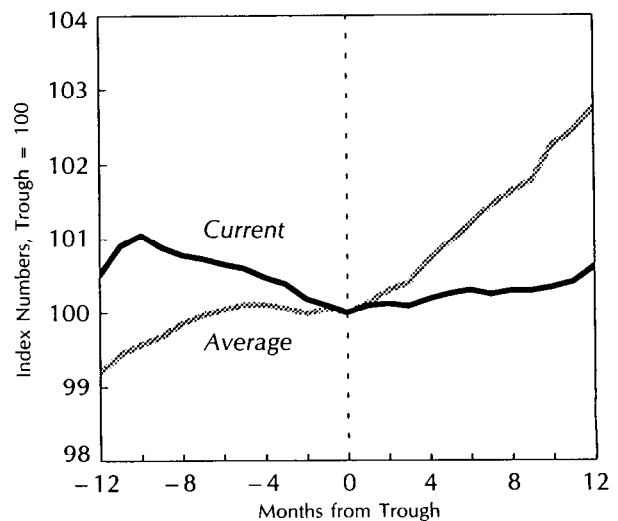
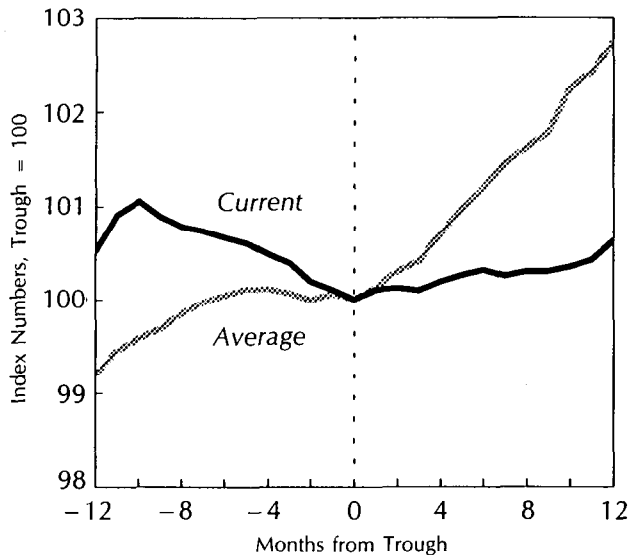


Chart 8

F.I.R.E. EMPLOYMENT

Average of Seven (Pre-1990) Cycles
Around Troughs versus Current Cycle



percent of trough in the other post-1969 recessions. The employment recovery in the business and health services industry and in government, however, seemed to be little different from employment in past recoveries.

Summary of Cyclical Comparisons

The charts show that, except in the construction industry, the employment contraction that began in 1990 was mild relative to contractions in past recessions. In addition, the charts show no evidence that the recent recession hit supervisory workers any harder than it hit production workers. Service workers were hard hit, but so were workers in the construction and manufacturing sectors.

Two features of the recent recession seem to stand out. First, virtually all industries were affected, even industries that had been thought to be immune to recession. The finance, insurance and real estate sector in particular, which was not affected by past recessions, was hit hard in the 1990-92 recession. Only the business and health services sector seemed to retain immunity to the effects of recession.

Second, there has been an absence of a recovery in employment. Although most observers still place the trough of the recession in April 1991, there has been virtually no increase in employment since that time. The failure of the employment to rebound as it did from other recessions is indeed puzzling. More

than any other factor, this sluggishness indicates that something unusual, perhaps something noncyclical such as a restructuring of the various industries (as Sylvia Noser suspects), is delaying the recovery from what would otherwise be a rather mild recession. But whatever is preventing the rebound, it is playing few favorites, for it seems to be affecting almost all industries and classes of workers.

EVIDENCE THAT THE SLOW RECOVERY STEMS FROM STRUCTURAL CHANGE

Trends in Aggregate Employment over Past Three- and Four-Year Periods

As McNees (1992) noted, the U.S. economy has experienced slow economic growth since 1989. Payroll employment increased at an annualized average monthly rate of only 0.15 percent during the three-year period from April 1989 to April 1992. This rate of growth, while slow, is not unique to the 1989-92 time period. Between 1950 and 1992 there were 16 (occasionally overlapping) 36-month periods with slower average growth rates.

Using overall employment data to evaluate longer-term employment trends, however, fails to take into account demographic changes in the U.S. labor force. Therefore, three- and four-year growth rates of the ratio of payroll employment to the 16-64 year-old population were examined. The calculated employment/population ratio averaged an annualized percentage increase of 0.1 percent per month in the four-year period ending in April 1992 and -0.5 percent per month in the three-year period ending in the same month. There were 157 (often overlapping) four-year periods and 85 (often overlapping) three-year periods between 1952 and 1991 that had slower average growth than the current ones. The conclusion of this last finding, contrary to that of McNees (1992), is that the slow growth characteristic of current aggregate employment has not been especially unusual relative to past three- and four-year periods.

There remains, however, the argument that the trend toward downsizing and restructuring of the U.S. economy has resulted in a number of jobs being permanently discontinued. This argument implies that even if the aggregate employment situation recovers, there will have been a substitution of low-paying unskilled or semi-skilled service jobs for more desirable and higher-paying middle-management and skilled staff positions.

Evidence of Downsizing and Restructuring

Dan Lacy, who edits the newsletter *Workplace Trends*, has recorded corporate staff cuts since 1988. He calculates that corporations cut 111,000 permanent staff positions in 1989, 316,000 in 1990, and 556,000 in 1991. He also estimates that since the start of 1989, 155,000 positions have been eliminated in the computer industry, 131,000 in autos and related industries, and 121,000 in defense/aerospace. In 1991, the auto industry was the leading downsizer, removing 88,600 positions, followed by computers (85,700), financial services (64,200), defense/aerospace (63,600), and retailing (53,200).

The almost one million permanent staff cuts counted since 1988, of course, do not necessarily mean that there are a million fewer permanent positions than there were in 1988. In a dynamic economy, some industries and firms reduce staff while others expand, and Lacy's numbers calculate only the positions lost. There is, however, other evidence that permanent jobs are, on net, being eliminated.

The Bureau of Labor Statistics (BLS) provides a breakdown of unemployment in the economy by those who lost their jobs temporarily (on layoff) or permanently (other job losers). Studies by both (1) David Altig and Michael Bryan (1992) and (2) James Medoff (1992) examine these categories in explaining unemployment in the current recession. Altig and Bryan conclude that:

Increases in permanent separations have occurred in roughly the same magnitude in every recession of the past 25 years, suggesting that structural change has been an important element of each of the past five downturns. Rather, it is the absence of a rise in cyclical layoffs during the latest recession that is unusual from a historical perspective. That is, our current economic landscape is almost entirely the product of permanent, structural change. (p. 3)

Charts 9 and 10 illustrate the differences between layoffs and permanent job losses in this and past recessions that were observed by Altig and Bryan (1992).⁴ Chart 9 shows layoffs as a percent of age 16-64 population for the five post-1964 recession/recovery periods. As the chart shows, there were quite definite cyclical peaks for layoffs in the 1974-76, 1979-81, and 1980-83 periods, but no distinct

⁴ The data on job losers are not available before 1967, a factor which precludes any comparison with the 1957-59 or 1960-61 periods. For these charts, the data are shown as percentages of the total working-age population.

cyclical peak in 1990-92. Chart 10 shows permanent job losses (in BLS terminology, other job losses) as percentages of the 16-64 population. It illustrates quite well Altig and Bryan's point that permanent job losses tend to rise in recession/recovery periods. It also shows that by April 1992, twelve months after the April 1991 trough, permanent job losses were relatively large compared to the losses registered in November 1971, March 1976, and July 1981, but lower than the job losses as of November 1983.

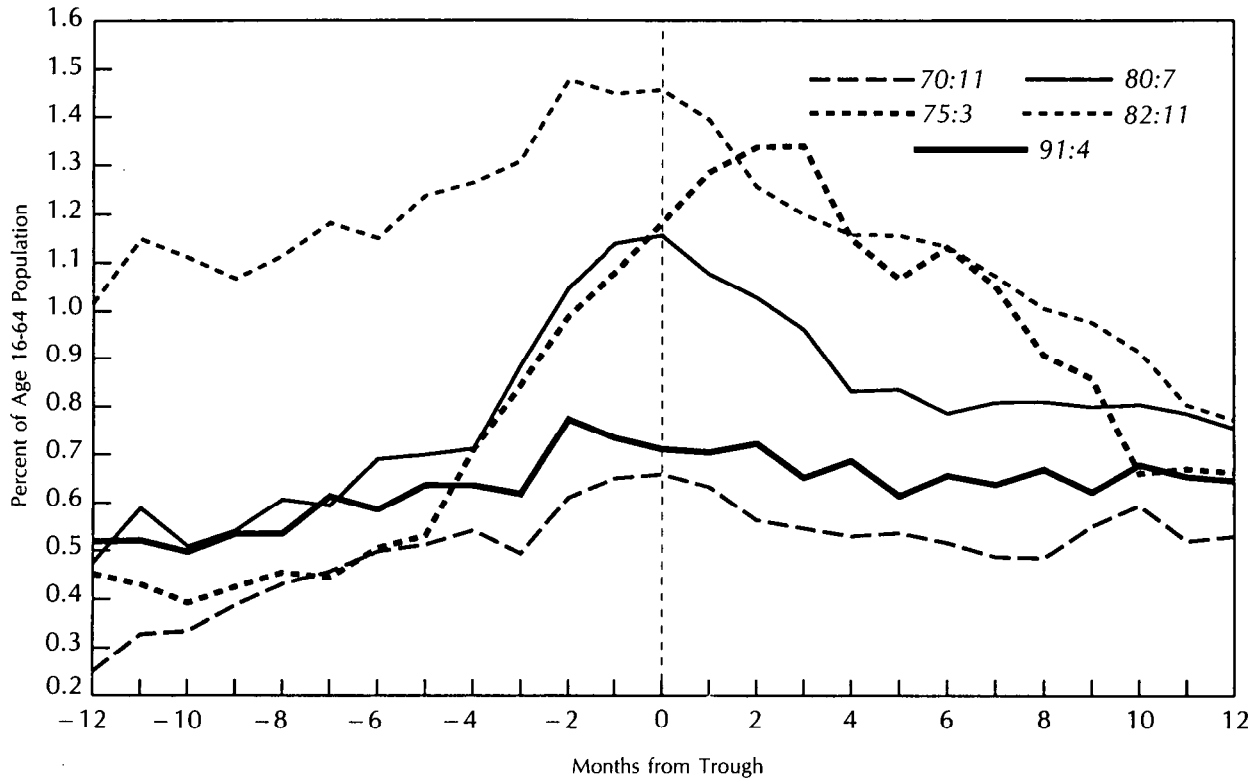
Medoff (1992) uses the Conference Board's Index of Help Wanted Advertising in Newspapers as a measure of the availability of jobs for unemployed workers. He compares the levels of the help wanted index to the level of the unemployment rate in this and past recessions. He concludes that jobs have been less readily available in the current recovery than they were in past periods when the unemployment rate was about the same as it has been recently.

One final bit of information relates to the average duration of unemployment, shown in Chart 11. If the recent sluggishness in the economy is mainly a structural phenomenon, the average duration of unemployment 12 months after the trough would be expected to be greater than it was in past, more cyclical, recessions. The data show the average duration 12 months after trough to have been 12 weeks (1970 trough), 16.5 weeks (1975 trough), 13.8 weeks (1980 trough), 19.7 weeks (1982 trough), and 17 weeks (1991 trough). This information indicates that the structural component of the current recession and recovery may be relatively weaker than in the 1981-83 period, but stronger than in the other three past recessions.⁵

What can be gleaned from these data? First, as Altig and Bryan (1992) observe, structural (permanent) job losses are characteristic of other recessions as well, and the structural component of the current recession is high but not unique. On the other hand, the present recession has shown a much less than normal cyclical rise in the layoff rate. Altig and Bryan conclude about the current recession/recovery that "what distinguishes the current economy is the lack of a typically 'cyclical' element" (p. 1). Their conclusion is based, however, solely on the unusual behavior of the layoff data in the current recession. Before accepting their conclusion, one should determine whether there are other explanations for the unusual behavior of the layoff rate.

⁵ Data on the average duration of unemployment is not available before 1964, so comparisons with the other postwar recessions cannot be made.

Chart 9
LAYOFFS IN PAST CYCLES



It is possible that something in the economic environment has changed since the last recession and recovery period (1981-83) that would induce firms to *terminate* rather than *furlough* workers even if the firms are likely to need such workers in the future. One possibility relates to health care benefits, the costs of which have risen sharply since the early 1980s.

A Speculation: Health Insurance Coverage of Laid-Off and Terminated Workers

The Bureau of Labor Statistics' Office of Compensation and Working Conditions in 1986 conducted a survey of medium and large firms that provide health care benefits to full-time employees on layoff. The survey found that 52 percent of the firms continued health benefits coverage during layoff, 22 percent did not continue coverage, and 25 percent had no policy established (usually because layoffs were unusual). Of those who had policies and who continued coverage for laid-off employees, slightly over half paid all of the cost of continuing the coverage, slightly over one-fourth required the

employee to pay all of the cost, and slightly over one-tenth split the cost between employer and employee. The duration of the coverage varied considerably, but it was generally six months or less.

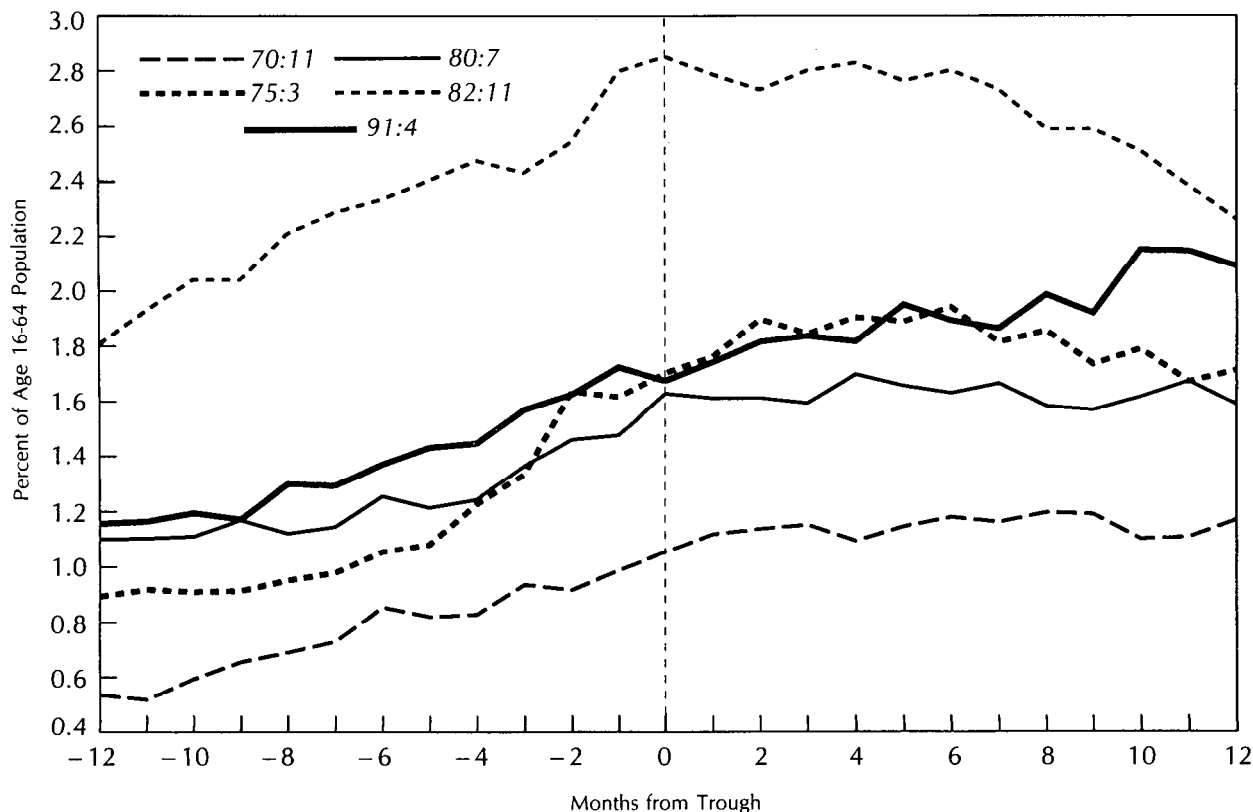
The Consolidated Omnibus Budget Reconciliation Act, known as COBRA, was signed into law on April 7, 1986. This law provides for health care continuation, and may affect the incentives for firms to lay off workers. COBRA requires employers (of over 20 persons) that sponsor group health care plans to offer qualified beneficiaries the right to elect to continue their health care coverage if they are terminated (for reasons other than gross misconduct) or if they lose coverage because their work hours were reduced.⁶ Coverage in the case of termination is for a period of 18 months. The law allows the firm to require the beneficiary to pay up to 102 percent of the insurance premium (employee and

⁶ And for other reasons as well. These reasons include death of covered employee, covered employee's divorce or legal separation, covered employee's entitlement to Medicare, and bankruptcy of a retired covered employee's employer.

Chart 10

PERMANENT JOB LOSSES IN PAST CYCLES

12 Months Before and After Trough



employer share) required for regular non-terminated employees.⁷

COBRA does not distinguish between layoffs and permanent terminations, but it does extend the period of coverage for all covered employees beyond the usual duration found by the 1986 BLS survey. COBRA, therefore, could influence firms' decisions on layoffs versus terminations. Even if a firm paid an employee's total health insurance costs for 6 months, it would still be required under COBRA to offer the employee coverage for the remaining 12 months of the 18-month period following layoff. Thus, given the extraordinarily high current costs of health care, firms with policies to pay for laid-off employees' health care might now find those policies to be too expensive. As a result, firms would have

⁷ The 102 percent, according to some employers, does not cover the entire cost of the continuation of coverage. In one BLS survey of 103 employers and administrators, 45 of which provided adequate information for cost comparisons, continuation-of-coverage costs were 157 percent of active employee costs.

incentives to terminate employees who formerly might have been put on temporary layoff.

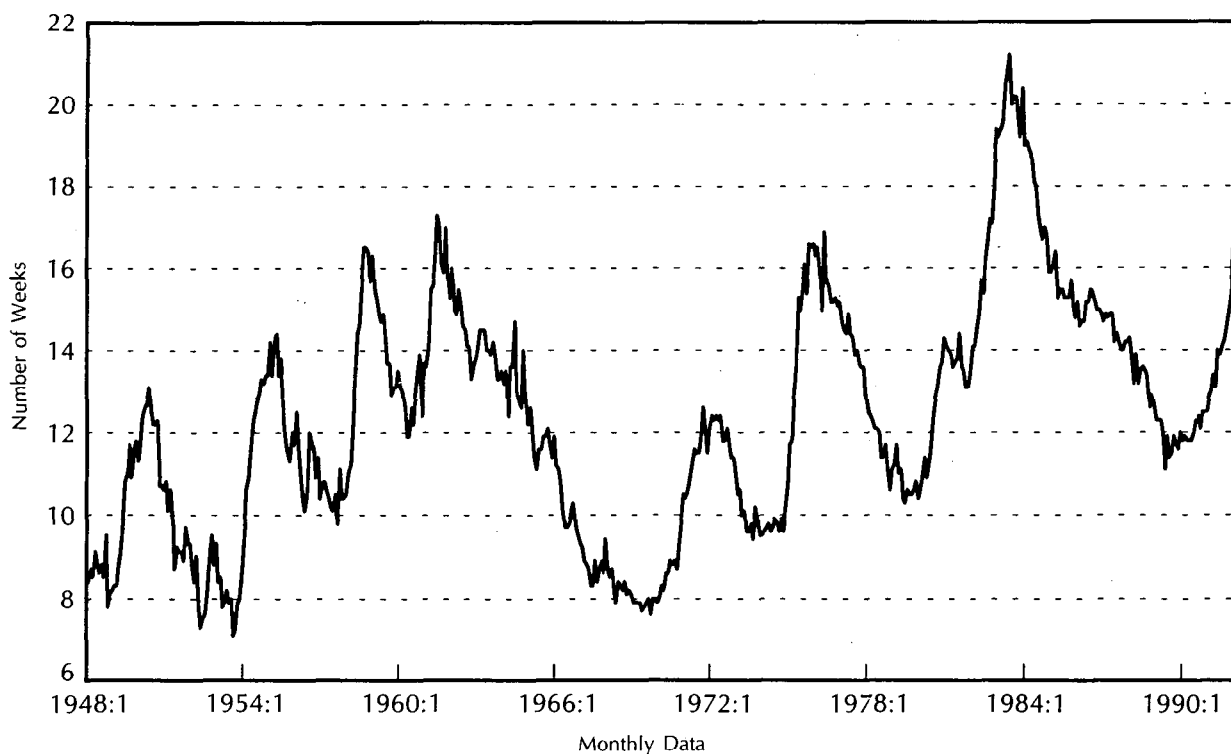
Admittedly, the full effects of COBRA and rising health insurance costs on the layoff data are not known. An examination of the effects would seem to be a fertile area for future research.

SUMMARY AND CONCLUSIONS

The 1990-91 recession was relatively mild by standards of past recessions, but the recovery from the recession has been unusually weak. The economy has also had relatively slow trend employment growth since April 1989, but there have been a number of three-year periods in which employment growth has been slower. The recession also seems to have had an impact on an unusually large number of industries, including industries that formerly were considered to be "recession-proof." The recovery has been weak for supervisory and nonproduction employment, but it has been equally weak for production workers. Finally, highly skilled professional staff members

Chart 11

AVERAGE DURATION OF UNEMPLOYMENT



have been affected to a greater degree than in past recessions, according to anecdotal information. Thus, there is substantial evidence that the economy has been undergoing structural changes.

Cyclical series like total payroll, construction, and manufacturing employment and retail trade have had little or no recovery from their trough values. In fact, employment in the normally cyclical durable goods manufacturing has been declining since April 1990. Employment in normally noncyclical series has also behaved differently in the current recession and recovery period. Employment in the service-producing sector (especially the finance, insurance, and real estate portion) has been unusually weak since April 1990.

Additionally, according to Don Lacy (1992), corporations have made almost one million permanent staff cuts since 1988. BLS data on job losers show that permanent job losses 12 months after the April 1991 trough were relatively larger than they were 12 months after the 1971, 1976, and 1981 troughs, but *smaller* than they were after the 1983 trough. The

same relative pattern was true of average duration of employment 12 months after a trough.

The layoff pattern has also been quite different in the current recession/recovery period. Altig and Bryan (1992) note the absence of a cyclical movement in layoffs that has been characteristic of past recessions. On the other hand, it may be that the unusual behavior of layoffs is attributable to firms trying to economize on health care costs. It seems likely, however, that Altig and Bryan are generally correct in noting that there has been less cyclical movement in the current recession.

Everyone knows, moreover, that there has been a movement toward structural change in U.S. industry since the mid-1980s. There have been revolutionary changes in the financial industry and substantial changes in the automobile, computer, and retail trade industries. These changes do not necessarily mean that positions have been permanently lost for managers and highly skilled staff employees, but since the more highly skilled positions often require a longer job search, the

structural changes may explain the relative slowness of the employment recovery to date.

On the other hand, if the 1990-91 recession is examined by itself, cyclical changes seem normal. Thus, since the relevance of the layoff data can be discounted somewhat because of firms' incentives to

economize on health care costs, it seems risky to conclude that there was no cyclical component to the recent recession. The best conclusion seems to be that the economy's behavior in the current recession/recovery period results from a blend of cyclical and structural factors, with the structural factors delaying the economy's recovery.

REFERENCES

- Altig, David and Michael F. Bryan. "Can Conventional Theory Explain the Unconventional Recovery?" Federal Reserve Bank of Cleveland, *Economic Commentary*, April 15, 1992.
- Lacy, Dan, ed. *Workplace Trends*, January/February 1992.
- McNees, Stephen K. "The 1990-91 Recession in Historical Perspective," Federal Reserve Bank of Boston, *New England Economic Review*, (January/February 1992), pp. 3-22.
- Medoff, James L. "The New Unemployment," prepared for the use of Senator Lloyd Bentsen, Chairman of the Subcommittee on Economic Growth, Trade and Taxes, Joint Economic Committee, April 1992.
- Noser, Sylvia. "Employment in Service Industry, Engine for Boom in 1980s, Faltering," *New York Times*, January 2, 1992, p. D4.
- Stein, Herbert. "The Middle-Class Blues," *The American Enterprise*, vol. 3, no. 2 (March/April 1992), pp. 5-9.