

White- and Blue-Collar Jobs in the Recent Recession and Recovery: Who's Singing the Blues?

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Introduction

Was the 1990–91 recession predominantly “white collar,” as many analysts and media reports have claimed? And if so, did this public focus on the layoffs of managers, professionals, and scientists arise because the downturn hurt white-collar workers more than their blue-collar counterparts, or because their plight was somehow worse than in previous recessions? This paper examines these questions by analyzing the absolute and relative severity of the recent recession for both occupational groups, using aggregate data from the Bureau of Labor Statistics (BLS) for the six downturns since 1960.¹

Our results show that during the 1990–91 slump, the labor market faced by blue-collar workers was worse and deteriorated more than the white-collar job market. However, the lack of white-collar employment growth was unusual by historical standards. Furthermore, the latest recession was harsher than most previous

ones for white-collar workers, but milder than the historical median for blue-collar workers. The 15 months of recovery beginning in May 1991 also sent contradictory signals, but clearly stacked up as the weakest rebound ever for both occupational groups.

One difficulty in answering the questions posed here is pinpointing the trough of the 1990–91 recession. For previous downturns, we use the peak and trough months designated by the National Bureau of Economic Research (NBER). Because the trough of the recent recession has not yet been named, we follow the lead of many analysts who, using the same general criteria as the NBER, conclude that April 1991 will eventually be chosen.² In section V, we compare the pace of the current recovery for white- and blue-collar workers and consider how our qualitative conclusions might change if May

■ 1 For further comparisons between the 1990–91 recession and previous ones, we refer readers to McNees (1992). For a description of other labor market conditions during the recent recession, see Meisenheimer, Mellor, and Rydzewski (1992).

■ 2 The day before this article went to press, the NBER's Business Cycle Dating Committee, which is the official arbiter of the economy's peaks and troughs, designated March 1991 as the trough of the 1990–91 recession. Fortunately, our assumed trough is only one month later, and experiments conducted with several alternative dates do not affect our qualitative results. A set of slightly revised tables using March 1991 as the trough is available from the authors upon request.

1991 through July 1992 were included in the recession. In general, experiments with alternative troughs and with monthly measures do not affect our results.³

I. Why Occupations Are Affected Differently by Recessions

Conceptually, white-collar workers hold salaried or professional jobs and usually do not perform manual labor. In contrast, blue-collar workers hold hourly jobs that generally involve some physical tasks. On average, white-collar positions require more formal education and training, while most blue-collar skills are acquired relatively quickly, often on the job.

The reasons why economic downturns have different impacts on these two groups hinge on the various roles in the production process that employees play. Historically, contractions have had a muted effect on white-collar workers because their employment is less closely tied to production levels. Typically, when a U.S. company faces falling demand, it cuts output and lays off production (blue-collar) workers. By contrast, white-collar workers are likely to be retained in the short run. Their salaries are generally considered part of the fixed costs of operation, since their replacement costs (hiring, training, and so on) are higher and their services are not easily divisible. The employment of accountants and engineers by the auto industry, for example, is not as cyclically sensitive as that of assembly-line workers.

Second, the compensation plans of white-collar workers are often more flexible than those of their blue-collar counterparts. Thus, the adjustment to an economic downturn may take the form of lower profit shares or bonuses for a firm's white-collar staff, while blue-collar workers are more likely to lose their jobs.

Finally, the last 30 years have witnessed a strong secular decline in the blue-collar share of U.S. employment. Explanations for this phenomenon include technological changes that conserve on low-skill labor (such as automation) and increased competition from less-developed

countries. Employment losses arising from such structural shifts are most intense during a recession, either because they actually induce the slowdown or because cyclical drops in demand force marginally productive employers to modernize or to cease operations more quickly than they would during an expansion. Thus, the overall trend away from blue-collar employment also tends to deepen recessions for these workers.

On the other hand, three factors peculiar to the 1990–91 recession suggest an enhanced impact on white-collar workers this time around, and perhaps in future downturns. First, recessions do not affect all industries equally. A slowdown will exact a greater toll on white-collar workers if it is centered in industries that employ a high percentage of these employees. Downturns in the banking, finance, or computer industries (all of which led the way into the latest recession), for example, will hit white-collar workers harder than downturns in the auto industry. Second, the recent growth in contracting out for traditional white-collar functions (such as accounting, advertising, and secretarial and design services) may provide employers with a route for minimizing the indivisibility of their white-collar staff. Consequently, as their customers cut back, service providers will lay off the white-collar workers whose services they used to farm out.

Finally, the absolute impact of a recession on any group of workers will rise with that group's share of total employment and total labor costs. The shift toward white-collar employment over the past 30 years, when coupled with the rising pay differential between white- and blue-collar workers, suggests that employers may increasingly resort to white-collar layoffs when they need to cut costs. Conversely, during a recovery, we would expect labor market conditions to improve more rapidly for those groups that suffered high rates of temporary layoffs during the recession, as well as for those with a strong secular growth trend. For white-collar workers, these two influences tend to work at cross-purposes.

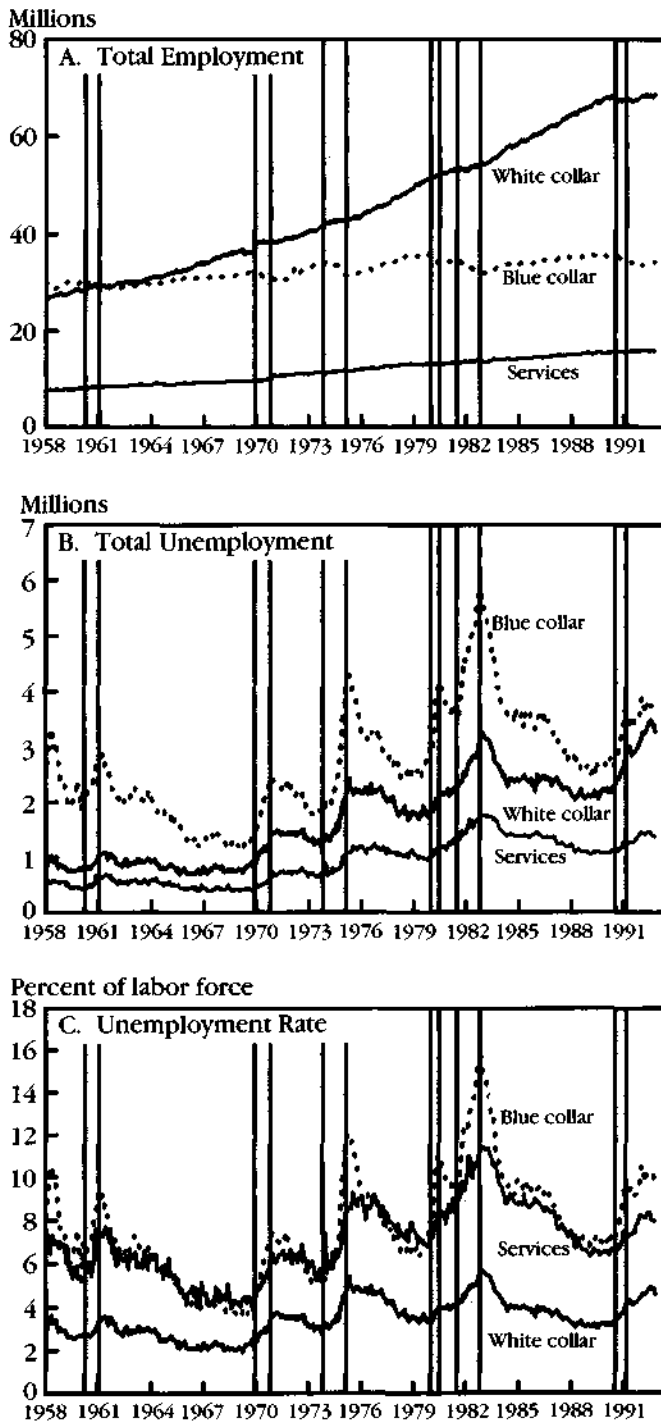
II. Defining Collar Color: The Data

The most comprehensive U.S. employment figures are gathered in the BLS's monthly, household-based Current Population Survey (CPS). At present, the BLS organizes occupational statistics into six broad categories: 1) managerial and professional specialties, 2) technical, sales, and administrative occupations, 3) service occupations, 4) precision production, craft, and repair

■ **3** Throughout this paper, recession-linked changes in employment/unemployment are measured from the month of the previous peak to the month of the trough. We do not investigate the possibility that white- and blue-collar labor markets experienced different business cycle lags. We also conducted analyses using three-month moving averages (recommended by the BLS because of monthly variations in occupational classifications) and found that our qualitative results were unaffected. For ease of exposition, we present only the basic analysis here.

FIGURE 1

U.S. Labor Market Indicators by Major Occupational Group



NOTE: All data are seasonally adjusted. Shaded areas indicate recessions. Service occupation data are estimated from totals and subtotals provided by the BLS and thus should be interpreted with caution.

SOURCES: Data for 1958–77 and 1983–87 are from the U.S. Department of Labor (1983, 1988). Data for 1978–82 were obtained directly from the BLS. Data for 1988–91 are from the U.S. Department of Labor, *Employment and Earnings*, various issues.

workers, 5) operators, fabricators, and laborers, and 6) farming, forestry, and fishing occupations. The first two categories are clearly white-collar jobs, while the last three are distinctly blue collar. Service occupations, on the other hand, do not fit easily into either broad group.⁴ Since the BLS does not provide seasonally adjusted data for services, we exclude this category from our analysis.⁵

These six occupational categories have been in place only since the BLS changed its classification system in January 1983. Fortunately, although the change affected all levels of classifications, the effect on the white-collar/blue-collar distinction is minimal.⁶ The pre-1983 category “white-collar occupations,” now officially dropped, contains (with few exceptions) the same detailed occupations now grouped into the first two categories listed above.⁷ The occupations in the pre-1983 “blue-collar” classification plus the “farm worker” category correspond roughly to the last three post-1983 categories.⁸ The “service occupations” category has remained essentially the same.

Further assurance that the occupational groupings are reasonably comparable over time can be found by examining a time series of labor market statistics. On the basis of answers recorded in the CPS, the BLS divides the U.S. population into three categories: the employed, the unemployed, and persons out of the labor force. Those in the latter category are not actively seeking employment, usually because they work without pay in the home or are retired, disabled, in school, or too young. Seasonally adjusted employment and unemployment totals and employment rates over the January 1958 to July 1992 period are presented in figure 1 for these three broad occupational categories. No obvious discontinuities show up in any of the series in January 1983.

■ 4 Service occupations include workers in private households and in the protective, health, food, and personal service industries. Like blue-collar jobs, service jobs are usually paid hourly, may be somewhat physical in nature, and require only moderate to low levels of general education. But like white-collar personnel, service workers generally produce intangible, non-storable products.

■ 5 Seasonally adjusted data are not provided because the series is too volatile.

■ 6 For further discussion of the BLS changes, see the appendix.

■ 7 The pre-1983 white-collar category includes professional and technical workers, managers and administrators, sales workers, and clerical workers.

■ 8 The pre-1983 blue-collar category includes craft and kindred workers, operatives (except transport), transport operatives, and nonfarm laborers. Our analysis adds farm workers to the pre-1983 data and includes farming, fishing, and forestry workers in the post-1983 data to improve comparability over time.

What is clear from the figure is that white-collar and, to a lesser degree, service employment grew dramatically over this period, while blue-collar employment remained essentially flat. Furthermore, the cyclical sensitivities of all three series differ by occupational groupings. In particular, panel C suggests that white-collar unemployment rates are both lower and less cyclical than blue-collar rates. Because the 1990–91 recession saw a dramatic increase in the number of unemployed for both groups, these charts alone cannot reveal whether the downturn can accurately be termed white collar.

There are no definitive criteria for judging a recession's severity. Thus, we focus on a wide range of employment and unemployment measures, comparing particular points in time (how bad things are at the trough) as well as changes over the cycle (how much they deteriorated from the peak).⁹ We examine both unemployment and employment, each of which can be charted by the number of workers so classified or be combined into the unemployment rate. Focusing on the unemployment rate helps to mitigate problems of interpretation posed by offsetting movements in the individual series.

The appropriateness of any particular measure depends on the reason one is interested in the white-collar/blue-collar distinction. For example, in order to target job services appropriately, the differential impact of the recession on the pool of unemployed persons would be the measure of choice. For those making or advising others on career decisions, a measure of risk or increase in risk of joblessness, such as the unemployment rate and its change, would be more useful. And for those interested in placements or office space needs, the employment-related indicators would be of greatest relevance. Although we try to summarize across all measures whenever possible, it is clear that sometimes our answers are not entirely uniform.

III. Absolute Measures

To determine whether white-collar workers suffered disproportionately during the 1990–91 recession, we examine a variety of labor market indicators for the period. These figures reveal

that blue-collar, not white-collar, workers bore the brunt of the downturn.¹⁰

Beginning with unemployment measures (rows 1 to 6 of table 1), we note that in April 1991, even though white-collar workers accounted for over half of total employment, they constituted less than two-fifths of the unemployed, below the blue-collar share (row 1).¹¹ Less than half the increase in joblessness over the course of the recession came from the white-collar ranks (row 2). Furthermore, the white-collar unemployment rate was less than half the blue-collar rate, with the latter rising about twice as much from peak to trough (row 5).

Only when we examine *changes* relative to the base of unemployment at the beginning of the recession (rows 3 and 6) does the increase in white-collar unemployment appear comparable to, or slightly worse than, that for blue-collar workers. That is, these measures tell us that the pool of unemployed became slightly more white collar over the course of the downturn, although it was still dominated by other occupations.

The employment measures presented in rows 7 through 9 of table 1 also offer little evidence of a white-collar recession. Blue-collar employment shrank about 3 percent, while the number of white-collar positions actually expanded, albeit slowly. In fact, since the white-collar and service occupations added jobs, the decline in blue-collar slots actually accounted for more than the total number of jobs lost.

To evaluate the recession and its aftermath as a whole, we repeated the analysis assuming a trough of July 1992. The results are reported in the last three columns of table 1. Although this change does not alter the qualitative conclusions discussed above, it does make the recession appear somewhat worse for white-collar workers when judged by unemployment measures. For every unemployment labor market indicator, extending the period of analysis raises the value of the white-to-blue-collar ratio. For employment measures, on the other hand, considering the whole period improves the picture for white-collar personnel.

■ 9 Other nonemployment indicators that would be interesting to investigate are income, wealth, bankruptcy rates, or unemployment insurance changes over the course of the recession. Unfortunately, data for many years are not available.

■ 10 These results are qualitatively similar to those obtained using preliminary data for February 1990 through February 1991, reported in Eberts and Groshen (1991).

■ 11 The blue- and white-collar shares of employment and unemployment do not sum to 100 percent because service occupations are excluded.

TABLE 1

Impact of the 1990-91 Recession on White- versus Blue-Collar Workers

Labor Market Indicator	July 1990-April 1991			July 1990-July 1992		
	WC ^a (percent)	BC ^b (percent)	WC/BC (ratio)	WC (percent)	BC (percent)	WC/BC (ratio)
Unemployment measures						
Share of employment at end of period	39.2	44.5	0.88	39.8	42.5	0.94
Share of increase in unemployment	46.6	46.1	1.01	45.6	38.3	1.19
Percent increase in unemployment	26.9	22.7	1.19	47.1	33.7	1.40
Unemployment rate at end of period	4.2	9.0	0.47	4.8	9.8	0.49
Change in unemployment rate	0.9	1.7	0.53	1.4	2.5	0.57
Percent increase in unemployment rate	25.4	23.9	1.07	42.4	34.5	1.23
Employment measures						
Share of employment at end of period	57.5	28.8	2.00	57.8	28.6	2.02
Share of employment change	-20.6	121.5	-0.17	-953.2	935.5	-1.02
Percent change in employment	0.3	-2.8	-0.10	1.8	-3.3	-0.55

a. White collar.

b. Blue collar.

NOTE: All data are seasonally adjusted. Because seasonally adjusted data are not available for service occupations, they are omitted from the table. In April 1991, total unemployment was 7,568,000 and total employment was 116,844,000. In July 1992, total unemployment was 8,843,000 and total employment was 117,759,000. Blue- and white-collar shares of unemployment and employment do not sum to 100 percent because service occupations are omitted.

SOURCE: U.S. Department of Labor (1983, 1988, *Employment and Earnings*, various issues).

TABLE 2

White- and Blue-Collar Unemployment during Recessions

Recession	Peak to Trough Increase in Unemployment (thousands of workers)		Peak to Trough Percent Increase in Unemployment		Unemployment Rate at Trough (percent)		Peak to Trough Percent Increase in Unemployment Rate	
	WC ^a	BC ^b	WC	BC	WC	BC	WC	BC
1960-61	244	722	32.5	36.2	3.3	8.8	28.1	37.9
1969-70	557	984	64.6	68.6	3.6	7.4	61.0	68.1
1973-75	935	2,330	77.2	125.7	4.8	11.9	69.6	126.1
1980	244	1,122	13.2	38.2	3.8	10.9	11.2	41.0
1981-82	978	2,284	44.2	64.8	5.6	15.6	39.6	67.5
1990-91	628	622	26.9	22.7	4.2	9.0	25.4	23.9

a. White collar.

b. Blue collar.

NOTE: All data are seasonally adjusted. April 1991 is estimated trough of 1990-91 recession.

SOURCE: U.S. Department of Labor (1983, 1988, *Employment and Earnings*, various issues).

TABLE 3

White- and Blue-Collar Employment during Recessions

Recession	Peak to Trough Change in Employment (thousands of workers)		Peak to Trough Percent Change in Employment	
	WC ^a	BC ^b	WC	BC
1960-61	760	-1,110	2.7	-3.8
1969-70	308	-894	0.8	-2.9
1973-75	989	-2,395	2.4	-7.2
1980	736	-1,888	1.4	-5.4
1981-82	844	-2,903	1.6	-8.5
1990-91	167	-985	0.3	-2.8

a. White collar.

b. Blue collar.

NOTE: All data are seasonally adjusted. April 1991 is estimated trough of 1990-91 recession.

SOURCE: U.S. Department of Labor (1983, 1988, *Employment and Earnings*, various issues).

IV. A Historical Perspective

Since the 1990-91 recession was clearly not a white-collar one judged by the absolute criteria examined above, we now refocus on whether white-collar workers were hit *harder* than in the past. First, we compare their unemployment experience during the latest recession to recent patterns. Next, we compare their employment experience during past recessions to the latest pattern. Finally, we compare the relative historical severity of the recent recession for white-collar workers (using both employment and unemployment measures) to that for blue-collar workers.

Was white-collar unemployment higher or did it increase more during the latest recession than in the earlier downturns? The answer is no. Table 2 presents separate white- and blue-collar unemployment-based measures of severity for the six most recent recessions. Column 1 shows that the number of jobless white-collar workers rose by greater absolute amounts in both the 1973-75 and 1981-82 downturns. In percentage terms (column 3), which control for burgeoning white-collar employment, the current white-collar increase in joblessness is the second *lowest*. Turning to unemployment rates, columns 5 and 7 show that the white-collar rate at the 1990-91 trough was lower than in two previous recessions and that it increased less than in four

previous recessions. Thus, using the yardstick of their own unemployment in previous slow-downs, white-collar workers did not appear to fare worse this time.

Was job creation particularly slow for white-collar workers? Most definitely. Table 3 reports changes in employment during the six most recent recessions. Columns 1 and 3 reveal a striking difference between the 1990-91 episode and the previous five. White-collar employment growth during the latest downturn was by far the slowest observed. And although the meager addition of 167,000 white-collar jobs is still better than the drop in blue-collar employment during the mildest recession examined, in light of the previously unabated growth of white-collar jobs, this stall clearly sets the 1990-91 recession apart. The disparity between the unemployment and employment results must stem either from a drop in white-collar labor force participation or from a switch to blue-collar or service jobs.

In a historical sense, was the latest recession relatively more severe for white-collar than for blue-collar workers? Unlike the previous two questions, this one requires looking at a wide variety of indicators. Table 4 presents five possible ways of approaching the issue. The first column, provided for comparison purposes, shows the growth in white-collar workers' share of total employment over the past 30 years. If white-collar jobs were as cyclically sensitive as blue-collar and service jobs, then column 2, which reports the white-collar share of employment change, would be identical to column 1. Instead, these numbers are uniformly negative, indicating that white-collar employment continued to expand while total employment fell.

Column 3 of table 4 shows that although white-collar workers remained a minority of the unemployed in April 1991, they still constituted a greater percentage than during all five previous recessions. What's more, column 4 indicates that the current white-collar share of additions to the unemployment line is also at a record high. These numbers, while lower than the white-collar share of jobs, represent substantial and historically high percentages.

We saw in figure 1 that the highest jobless rate reached by white-collar workers (more than 5 percent in 1982) barely approaches the lowest rates experienced by blue-collar workers over the last decade. Hence, column 5 of table 4 focuses on the gap between the two rates. The white-collar unemployment rate for April 1991 is almost half that of blue-collar workers. Historically, it is the second highest white-to-blue-collar ratio, just barely superseded by the 1969-70 downturn.

TABLE 4

Relative Employment and Unemployment Measures during Recessions

Recession	White-Collar Percent of:				White-Collar/Blue-Collar Ratio of:	
	Employment		Unemployment		Unemployment Rate at Trough ^a	Increase in Unemployment Rate, Peak to Trough ^b
	Level at Trough	Change, Peak to Trough	Level at Trough	Change, Peak to Trough		
1960-61	44.4	-3,304.4	22.9	21.5	0.38	0.74
1969-70	48.7	-68.9	31.6	32.1	0.49	0.90
1973-75	50.1	-92.9	29.0	25.8	0.40	0.55
1980	52.9	-58.7	28.3	15.6	0.35	0.27
1981-82	54.4	-54.5	29.7	26.2	0.36	0.59
1990-91	57.4	-20.6	39.2	43.6	0.47	1.07

a. Ratio of column five to column 6 in table 2.

b. Ratio of column 7 to column 8 in table 2.

NOTE: All data are seasonally adjusted. April 1991 is estimated trough of 1990-91 recession.

SOURCE: U.S. Department of Labor (1983, 1988, *Employment and Earnings*, various issues).

TABLE 5

Relative Rankings of Severity of Recessions

Recession	Criterion											
	(I) Absolute Increase in Number Unemployed		(II) Percent Increase in Number Unemployed		(III) Unemployment Rate at Trough		(IV) Percent Change in Unemployment Rate		(V) Absolute Change in Number Employed		(VI) Percent Change in Number Employed	
	WC ^a	BC ^b	WC	BC	WC	BC	WC	BC	WC	BC	WC	BC
1960-61	6	5	4	5	6	5	4	5	4	4	6	4
1969-70	4	4	1	2	5	6	2	2	2	6	2	6
1973-75	2	2	2	1	2	2	1	1	6	2	5	2
1980	6	3	6	4	4	3	6	4	3	3	3	3
1981-82	1	1	3	3	1	1	3	3	5	1	4	1
1990-91	3	6	5	6	3	4	5	6	1	5	1	5

a. White collar.

b. Blue collar.

NOTE: 1 = most severe, 6 = least severe.

SOURCE: Derived from tables 2 and 3.

TABLE 6

**White- and Blue-Collar Employment
and Unemployment during the First
15 Months of Recovery**

Recession	Percent Change in Employment		Percent Change in Unemployment		Unemployment Rate		Change in Unemployment Rate		Percent of Increase in Unemployment Rate Recovered ^a	
	WC ^b	BC ^c	WC	BC	WC	BC	WC	BC	WC	BC
1960-61	1.4	1.0	-21.7	-17.3	2.6	6.5	-0.7	-2.3	101.2	95.5
1969-70	1.8	6.6	-1.2	-10.8	3.5	6.2	-0.1	-1.1	7.4	37.8
1973-75	3.5	5.1	3.0	-22.2	4.8	9.1	0.0	-2.8	1.2	42.3
1980 ^d	1.6	2.9	6.1	-13.2	4.0	9.3	0.2	-1.5	-43.0	48.7
1981-82	5.2	5.9	-25.1	-37.2	4.1	9.9	-1.5	-5.7	97.4	90.0
1990-91	1.5	-0.5	15.9	9.0	4.8	9.8	0.6	0.8	-66.6	-44.7

a. Defined as the change in the unemployment rate over the 15 months following the trough, divided by the rise in the unemployment rate from the previous peak to the trough.

b. White collar.

c. Blue collar.

d. Because the recovery following the 1980 recession lasted only seven months, we present statistics for July 1980, the next peak.

NOTE: April 1991 is estimated trough of 1990-91 recession.

SOURCE: U.S. Department of Labor (1983, 1988, *Employment and Earnings*, various issues).

What about relative increases in the proportion of unemployed? Column 6 of table 4 reports the ratio of the percentage increase in the white-collar unemployment rate to that for blue-collar employees. In all five previous recessions, white-collar jobless rates increased proportionally less than blue-collar rates (that is, the ratio was less than one). Only in the recent downturn was the opposite true.

By the five measures considered in table 4, the 1990-91 recession appears to have been deeper, in a historical sense, for white-collar than for blue-collar workers. To reinforce this point, table 5 presents the results discussed earlier in a different form. We rank each recession according to the various criteria considered above, side by side for both groups of workers. Among white-collar employees, the harshest downturns occurred in 1973-75 and 1981-82, using the unemployment criteria (I-IV). Using those (within-white-collar) criteria, the 1990-91 recession ranks either third or fifth in terms of severity. However, when changes in employment (criteria V and VI) are considered, the latest downturn was the deepest for white-collar workers. For blue-collar workers, it does not rank above fourth for any of the measures listed above.

For a relative perspective, we next compare the rankings of white- and blue-collar workers for each recession. For example, by criterion I,

the 1990-91 recession was relatively deeper for white-collar workers (third compared to sixth in severity). Using this approach and considering all six criteria (particularly the employment-based gauges), the latest downturn ranks consistently more severe for white-collar workers. This, then, is one sense in which the recent recession is more white collar than earlier downturns.

V. How Have White-Collar Workers Fared since April 1991?

Table 6 compares various measures of white- and blue-collar workers' relative performance between April 1991 and July 1992 with the first 15 months of recovery after the earlier recessions. In the past, the lower cyclical sensitivity of white-collar jobs has meant that recoveries were felt most strongly in the blue-collar job market. Historically, during the first 15 months after a trough, both blue- and white-collar employment has risen, but blue-collar employment has usually picked up at least as fast, and often much faster, than the white-collar numbers, presumably reflecting workers recalled from temporary layoffs. Similarly, the ranks of the blue-collar unemployed

have shrunk faster than those of jobless white-collar workers, which have sometimes continued to rise after the trough.

If we use the unemployment rate at the previous trough as a benchmark, we can measure the extent to which labor markets recover in the first 15 months after a recession. Column 9 presents such estimates for each of the earlier recessions. For instance, by May 1962, 15 months after the February 1961 trough, the white-collar unemployment rate had already subsided to slightly below its level at the previous peak. In contrast, 15 months after the next trough, it had fallen by only 7.4 percent of the amount it had climbed between December 1969 and November 1970. Comparing the white-collar and blue-collar extents of recovery in columns 9 and 10, respectively, reinforces the notion that the pace of recovery tends to be faster in the blue-collar job market.

The bottom row lists figures for the current recovery. Columns 1 and 2 show that employment of white-collar workers has increased, while blue-collar jobs have continued to contract. Nevertheless, column 3 indicates that white-collar unemployment has risen rather than fallen — which also happened after two earlier downturns, though not nearly as dramatically. This suggests that entrants into the white-collar labor market are far outstripping increases in available positions, raising joblessness much more rapidly in the white-collar ranks. The 9.0 percent uptick in blue-collar unemployment since April 1991 is uncharacteristic of recent recoveries. Unemployment rates have risen for both white- and blue-collar occupations, with the white-collar rate adding another two-thirds of what it gained before April 1991, and the blue-collar rate adding almost half again what it had gained before.

Although this analysis of recoveries suggests that the current one is particularly weak, it does not contradict our previous conclusions. Labor market conditions for blue-collar workers continue to be worse than for their white-collar counterparts. Judged by employment measures, this recovery is slow for white-collar workers, but not unusually so, while blue-collar workers' losses are unprecedented. Furthermore, unemployment indicators for May 1991 through July 1992 hardly point to a recovery for either type of worker. Although it is not unusual for white-collar joblessness to pick up during recoveries, the current rise is uncharacteristically large. And since 1960, no other recovery has seen a net increase in blue-collar unemployment over the 15 months following the trough.

VI. Conclusion

This paper investigates whether the recession that began in July 1990 can accurately be characterized as white collar. We examine the employment/unemployment status of white- and blue-collar workers during the latest downturn and in the five post-1960 recessions in order to address the question from various angles. The answer we offer depends crucially on how the question is posed.

The absolute, narrowly focused question of whether white-collar workers bore the brunt of the recent recession yields a strong no: Blue-collar workers suffered larger unemployment increases and job losses and experienced higher unemployment rates. And when we ask whether the level of, or the increase in, white-collar unemployment reached a historical high, the answer is also an unequivocal no. By every measure considered here, the 1990–91 recession was less severe in this respect than at least two previous downturns.

But when we ask whether the growth of white-collar employment fell to a record low for a recession, the answer is a definite yes. White-collar job growth essentially stopped during the latest downturn, as opposed to just slowing, as it did in the previous five episodes.

Furthermore, when we ask whether, compared to their own experience in the earlier recessions, this one had a more severe impact on white-collar workers than on their blue-collar counterparts, the answer is also yes. In particular, when measured relative to their own history of employment changes during recessions, white-collar workers were clearly hit disproportionately hard. By all employment/unemployment criteria examined here, the latest downturn for white-collar workers ranks worse, in a historical sense, than the downturn for blue-collar workers.

Last, when we ask whether white-collar workers are lagging their blue-collar counterparts during the current recovery, the answer is less clear. The 15 months beginning in May 1991 rank as the weakest historically for both occupational groups, particularly for blue-collar workers.

Any explanation for the pattern of occupational impact seen in the 1990–91 downturn will ultimately require further analysis of secular changes in the structure of employment. Perhaps the changes in the white-collar labor market that we attribute to the recession in fact reflect a long-run shift in the previously uninterrupted growth of white-collar jobs, as suggested

in Cappelli (1992).¹² If so, the 1990–91 employment decline and tepid recovery may actually be the result of increased permanent, rather than cyclical, trimming of the corporate white-collar work force.¹³

Also of interest is why the recent recession slowed white-collar employment relatively more than it raised unemployment. Since losing one's job is usually a ticket to the unemployment line, the dissimilar results for these two measures present a puzzle. What did the displaced white-collar workers do during the recession instead of joining the ranks of the unemployed?¹⁴ And do their activities explain the sharp rise in white-collar unemployment during the recovery?

Until CPS data files with individual responses are released for analysis, we cannot answer these questions, but we can list some intriguing possibilities. White-collar workers may have delayed or avoided entry (or reentry) into the labor market by pursuing more education or training, by accepting early retirement offers, or by performing nonmarket activities in the home. Alternatively, they may have worked, perhaps temporarily, at blue-collar or service jobs. The answer should provide insights into the labor market of the 1990s, since these possibilities have different implications for both the composition and quality of the work force.

Finally, our conclusion that the 1990–91 downturn was *more* white collar than usual should not obscure the overriding fact that, judged by employment/unemployment criteria, recessions still exact a greater toll on blue-collar workers. By all measures examined here, the harshest recessions experienced by white-collar workers barely measure up to the mildest suffered by their blue-collar counterparts. In any absolute sense, the 1990–91 slump was clearly a blue-collar recession, like all those at least as far back as 1960.

■ **12** Also consistent with this hypothesis is evidence of a shift in the industrial distribution of displaced workers during the 1980s away from manufacturing and toward the service and retail trade industries (see Podgursky [1992]).

■ **13** In fact, this recovery has been characterized by a dramatic increase in the percentage of job losers across all industries who expect their layoffs to be permanent (see Altig and Bryan [1992] and U.S. Department of Labor [1992]). In general, layoffs from nonmanufacturing jobs are much more likely to be permanent.

■ **14** Of course, these numbers are not strictly contradictory. The number of unemployed white-collar workers has increased by 628,000, while white-collar jobs have grown little. However, as our analysis indicates, it is this recession's *employment* growth that was particularly slow. Thus, it may be more appropriate to think of the total number of white-collar jobs lost as the number that would have been created had the secular trend toward increased white-collar employment continued unabated. The unusual spurt in white-collar unemployment during the early months of the recovery may also be part of the story.

Appendix

In January 1983, the BLS changed its occupation classification system from the Dictionary of Occupational Titles to the Standard Occupational Classifications (see Green et al. [1983]). Fortunately, although the shift affected all levels of classifications, we believe that the effect on the white-collar/blue-collar distinction is minimal.

The few instances in which the reclassification moved workers across broad occupational categories are listed in table A–I. Were such movements substantial, they could compromise the comparability of the data over time. Using 1982 employment figures, about 200,000 workers were moved from white collar to blue collar, 123,000 from blue collar to white collar, 409,000 from services to white collar, 7,000 from white collar to services, and 8,000 from blue collar to services.

The total number of individuals reclassified constitutes less than 1 percent of U.S. employment, and the largest individual change, moving practical nurses from services to white collar, affects less than half of 1 percent of total employment in 1982. Thus, we feel reasonably confident that the reclassification is unlikely to have affected our qualitative results.

TABLE A-1

**Effect of 1983 Change in the BLS
Occupational Classification System**

Occupation	Moved		1982 Employment	Percent of Total 1982 Employment ^a
	From	To		
Ship officers, pilots, and pursers	WC ^b	BC ^c	41,000	0.04
Inspectors (not elsewhere classified)	WC	BC	136,000	0.13
Railroad conductors	WC	BC	23,000	0.02
Decorators and window dressers	BC	WC	123,000	0.12
Health trainees	Services	WC	9,000	0.01
Practical nurses	Services	WC	400,000	0.40
Therapy assistants	WC	Services	7,000	0.01
Urban rail conductors	BC	Services	8,000	0.01

a. Total employment in 1982: 101,206,000.

b. White collar.

c. Blue collar.

SOURCE: Unpublished data from the U.S. Department of Labor, Bureau of Labor Statistics.

References

- Altig, David, and Michael F. Bryan. "Can Conventional Theory Explain the Unconventional Recovery?" Federal Reserve Bank of Cleveland, *Economic Commentary*, April 15, 1992.
- Cappelli, Peter. "Examining Managerial Displacement," *Academy of Management Journal*, vol. 35, no. 1 (March 1992), pp. 203-17.
- Eberts, Randall W., and Erica L. Groshen. "Is This Really a 'White-Collar Recession?'" Federal Reserve Bank of Cleveland, *Economic Commentary*, March 15, 1991.
- Green, Gloria P., Khoan tan Dinh, John A. Priebe, and Ronald R. Tucker. "Revisions in the Current Population Survey Beginning in January 1983," *Employment and Earnings*, February 1983, pp. 7-17.
- McNees, Steven K. "The 1990-91 Recession in Historical Perspective," Federal Reserve Bank of Boston, *New England Economic Review*, January/February 1992, pp. 3-22.
- Meisenheimer, J.R., Earl F. Mellor, and L.G. Rydzewski. "The Job Market Slid in Early 1991, Then Struggled to Find Footing," *Monthly Labor Review*, vol. 115, no. 2 (February 1992), pp. 3-17.
- Podgursky, Michael. "The Industrial Structure of Job Displacement, 1979-89," *Monthly Labor Review*, vol. 115, no. 9 (September 1992), pp. 17-25.
- U.S. Department of Labor, Bureau of Labor Statistics. *Labor Force Statistics Derived from the Current Population Survey, 1948-1981*. Washington, D.C.: U.S. Government Printing Office, 1983.
- _____. *Labor Force Statistics Derived from the Current Population Survey, 1948-1987*. Washington, D.C.: U.S. Government Printing Office, 1988.
- _____. *Issues in Labor Statistics, Summary 92-8*. Washington, D.C.: U.S. Government Printing Office, July 1992.
- _____. *Employment and Earnings*, various issues (monthly).