
A Closer Look at Jobless Recoveries

By Stacey L. Schreft and Aarti Singh

Most analysts believe the U.S. economy is now recovering from the last recession. This belief is bolstered by the fact that the economy has grown a little more than 2 percent in the past year. Yet businesses have continued to shed workers, prompting *The New York Times* to dub this “the worst hiring slump in 20 years.” Market analysts and economists have a different name for what is happening. They call it a “jobless recovery.”

The only other jobless recovery in postwar U.S. history occurred following the 1990-91 recession. In the early years of that recovery, forecasting models based on data from past business cycles predicted that the observed pickup in output would be accompanied by employment growth. Those forecasts were consistently wrong and left policymakers puzzled by businesses’ continued trimming of payrolls.

Today, 12 years later, policymakers are again trying to understand the unexpected joblessness of a recovery. Since this is the second consecutive jobless recovery, the possibility that employment will be stagnant in most future recoveries must be considered. This possibility makes understanding the behavior of employment in recoveries, especially jobless recoveries, a priority. Understanding employment, one of the

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most important variables considered in evaluating economic activity, may enable policymakers to more accurately forecast the pace and strength of recoveries and to develop more effective policy responses.¹

This article takes a closer look at jobless recoveries and finds that they have many common features that distinguish them from the typical recovery. Section I presents evidence that the current recovery is indeed jobless and remarkably similar to the recovery from the 1990-91 recession. Section II delves deeper, examining changes in the pattern of employment over time that distinguish the jobless recoveries. The evidence suggests that firms relied more heavily on just-in-time employment practices in the jobless recoveries, substituting more flexible labor inputs—temporary and part-time workers and overtime—for less flexible labor inputs. Sections III and IV consider the implications of just-in-time employment for the pattern of job loss and the overall joblessness of recoveries.

I. IS THE U.S. IN A JOBLESS RECOVERY?

Typically, when output starts growing again after a recession, employment also starts to grow. When employment growth does not resume, the recovery is said to be jobless. This is the definition of a jobless recovery used in this article. It takes the descriptor “jobless” literally: If the growth rate of employment in a recovery is not positive, then the recovery is deemed to be jobless.²

This section first discusses how the joblessness of a recovery can be assessed and then shows that the current recovery, like the previous one, has been jobless. If output growth has also been weak in these recoveries, then some weakness in employment growth would be expected. The section thus goes on to consider whether the recent recoveries were jobless beyond what can be associated with any observed weakness in output growth.

Examining jobless recoveries

Business cycles consist of periods in which economic activity contracts and periods in which it expands. The trough of a cycle marks the date at which a contraction ends and an expansion begins. In the early part of an expansion, the economy is growing, but only making up for

the decline in activity that occurred during the preceding recession. This article refers to this phase of an expansion as the recovery.³ Different macroeconomic variables recover at different rates. Output, for instance, recovered within two quarters in the average postwar business cycle.

To assess the joblessness of a recovery, it is first necessary to know when the preceding recession ended. Although the trough of the 2001 recession has not yet been determined, this article follows most analysts in taking it to be December 2001.⁴

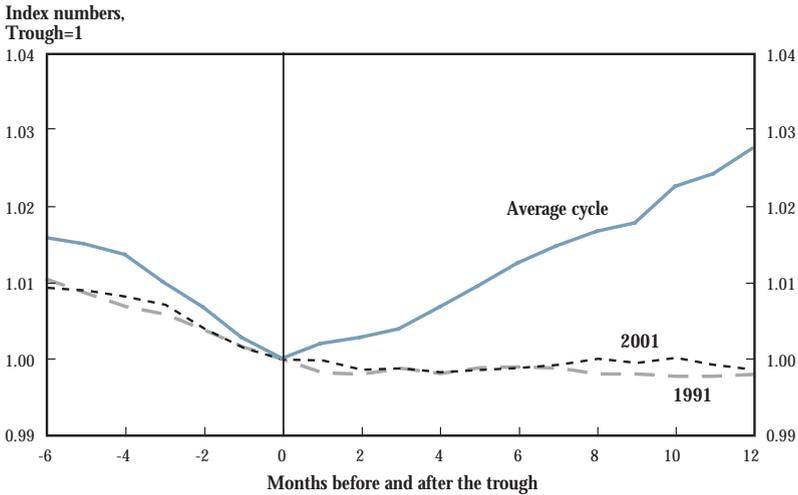
With a date for the trough, assessing a recovery's joblessness involves comparing employment growth in that recovery to employment growth in the recovery phase of the typical business cycle. This article takes the typical business cycle to be the average of past cycles between 1960 and 1989 whenever possible.⁵ For variables for which data are not available as far back as 1960, the average is constructed for the available cycles. The 1990-91 recession and subsequent recovery are excluded from the average because the recovery was jobless. That episode is instead compared independently to the most recent cycle and the average cycle.⁶

Population growth and long-term trends in employment complicate the comparison of labor market variables across business cycles. For example, with population growth, even if the fraction of the population working stays the same over time, the number of people working will be growing. As a result, in comparing employment across two recoveries, employment could appear to be higher throughout the more recent one. To get around this problem, this article indexes the data. Since the focus is on recoveries, the data for each business cycle are indexed to the start of the recovery—the trough. Indexing then involves dividing each data point by the variable's level in the trough. This, of course, results in the trough having a value of 1 since it is divided by itself.

Indexing in this manner is also useful because the value of each indexed data point on a line plotting, say, employment, represents the gross rate of employment growth from the end of the relevant recession. For example, an index value of 1.05 for employment in the 12th month after the trough of a cycle indicates that there were 1.05 times more jobs one year into that recovery than at the trough. Equivalently, it means that employment grew 5 percent in those 12 months.

Chart 1

NONFARM PAYROLL EMPLOYMENT



Note: The pre-1990 average cycle consists of the five business cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982.

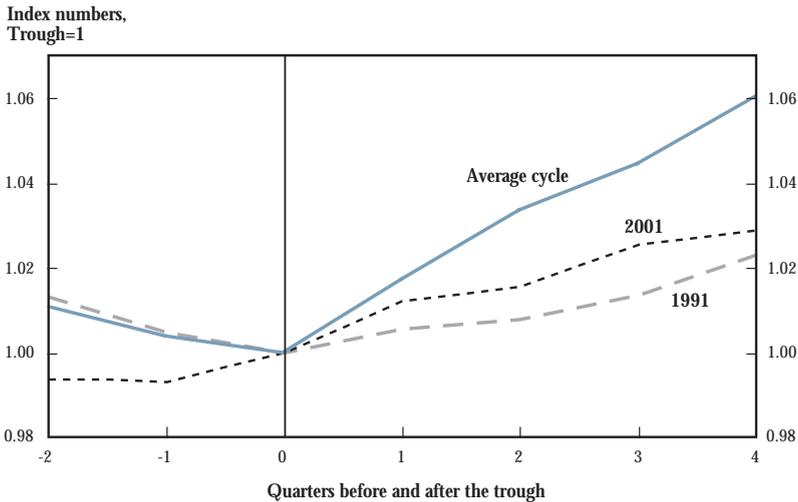
Source: Establishment Survey, Bureau of Labor Statistics

Finally, at the time this article was written, quarterly data were available through the fourth quarter of 2002. Thus, the article focuses on the first year of each recovery examined. This was done for consistency in analyzing quarterly and monthly data series.

Joblessness

The absence of employment growth in the early stages of the post-1990 recoveries justifies their “jobless” label. As Chart 1 shows, a year into the current recovery, the economy had fewer jobs than when the recession ended. In the chart, employment is represented by the number of workers on the payrolls of nonfarm businesses.⁷ Data are shown for six months before and 12 months after the trough of each business cycle analyzed. The line labeled “average cycle” shows employment relative to its trough in the average of the five business cycles from 1960 to 1989. The divergence of the line for the current recovery (labeled 2001) from the other two lines shows how employment growth

Chart 2
REAL GDP



Note: The pre-1990 average cycle consists of five business cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982.

Source: Table 1.8, Commerce Department, Bureau of Economic Analysis

in the current recovery differs from that in the other recoveries. Thus, the chart shows that 12 months into the current recovery, employment was 0.14 percent *lower* than at the trough of the recession. This decline in employment was comparable to what was observed at the same point in the recovery from the 1990-91 recession (“the 1991 recovery” for short in this analysis and “1991” in the charts). In comparison, in the first year of the average recovery, employment *grew* 2.7 percent. Clearly then, the jobless recoveries deserve the “jobless” label.⁸

Looking at growth rates, however, masks the human toll of the jobless recoveries. In the first 12 months of the current recovery, the economy lost an additional 220,000 jobs beyond those lost in the 2001 recession. Similarly, through the first year of the previous recovery, 211,000 jobs were lost. These job losses are especially significant when compared to the more than 2 million jobs gained in the first year of the average recovery.

The joblessness of the recent recoveries occurred in both the goods and services sectors. Service-sector payrolls expanded in the first year of the each jobless recovery, but only an anemic 0.5 percent. This rate compares to 2.6 percent growth in the typical recovery. Payrolls in the goods sector, however, shrank about 2.9 percent in the first year of each of the jobless recoveries, compared to growth of 3.1 percent typically. Although the goods sector has only 18 percent of the economy's jobs, its job losses were large enough to offset any job gains in the services sector and leave total employment down through the first year of each jobless recovery.

Employment growth relative to output growth

One possible explanation for the failure of employment growth to resume in the first year of the jobless recoveries is that economic activity was unusually weak. Chart 2 shows that real GDP was in fact weaker than in the typical recovery. Output grew 2.3 percent in the first year of the 1991 recovery and 2.9 percent over the same period in the current recovery. These growth rates are less than half what was observed in the average recovery.

With lower than average output growth in the first year of the jobless recoveries, slower employment growth would be expected during that period as well. If employment grew only as slowly as expected, then the joblessness of the recent recoveries would not be a mystery. It could simply be attributed to the weakness of the recoveries.

One way to assess whether employment growth was slow relative to output growth is by applying Okun's law (Okun). Okun's law provides a rule of thumb for estimating the response of employment to changes in output growth. Specifically, the rule states that every percentage point that real GDP growth is above its annual trend growth rate is associated with a rise in the employment rate (the number of employed persons as a share of the labor force) of half a percentage point.⁹ Applying Okun's law thus requires an estimate of the economy's trend rate of growth. The economy's trend growth rate from 1991 through 1995 has been estimated at 2.6 percent by the Congressional Budget Office. The estimate for 1996 through 2002 is higher, at 3.3 percent.

With these estimates of trend output growth, Okun's law implies that employment grew more slowly than can be explained by sluggish output growth alone. Given trend growth of 2.6 percent in 1991, the employment rate, according to Okun's law, should have fallen 0.15 percentage point in the first year of the 1991 recovery, when it actually fell by almost 0.7 percentage point. For the first year of the current recovery, Okun's law indicates that the employment rate should have fallen 0.2 percentage point if trend growth was 3.3 percent. This is less than the actual decline of almost 0.3 percentage point. Thus, each of the last two recoveries were more jobless than predicted by Okun's law.

II. NEW PATTERNS IN EMPLOYMENT

The failure of employment to grow is not the only distinguishing characteristic of the jobless recoveries. The use of just-in-time employment practices stands out as well. These practices include the employment of temporary and part-time workers and the use of overtime to achieve a more flexible workforce. Companies relied on these practices to a greater extent in the jobless recoveries.

The advantages of just-in-time employment practices are similar to those of the just-in-time inventory management techniques that became commonplace in the 1980s. These practices limit the costs associated with the use of labor when there is uncertainty about the strength and sustainability of a recovery. They allow firms to wait for assurance that the demand for their goods and services has recovered before hiring full-time workers on a more permanent basis. And they are more easily reversed than the hiring or firing of full-time workers and thus less costly in the long run.¹⁰

This section examines the use of these just-in-time employment practices. It finds that almost all of the employment variables considered were procyclical in the typical cycle, decreasing as the economy slowed in recessions and increasing as the economy grew in recoveries. Around the troughs of the two most recent cycles, however, these variables responded asymmetrically. The procyclical variables were still procyclical in the recessions. But in the recoveries only the use of more flexible labor inputs—temporary and part-time workers and overtime—grew, while the use of their less flexible counterparts continued to decline. In other

words, firms to some extent substituted more flexible labor inputs for less flexible ones. This substitution is a distinguishing characteristic of the jobless recoveries and a reflection of just-in-time employment practices being used to a greater extent at the stage of the business cycle where they can be especially valuable.

Temporary employment

Frequently in jobless recoveries, temporary employment is cited by the media and economic analysts as the bright spot in labor markets. The performance of temporary employment, according to this view, is the result of companies desiring a more flexible workforce.

Temporary workers. Temporary workers, or “temps,” are people who work for a temporary-help firm that sells their labor services to firms on a contractual basis. The temporary-help firm charges a premium over the wage rate for its placement services. One survey found the hourly rate these firms billed for their temp workers to be 39 percent above the hourly wage the temps received (Melchionno). The temporary-help firms use much of the difference to pay Social Security taxes and provide benefits to their workers.

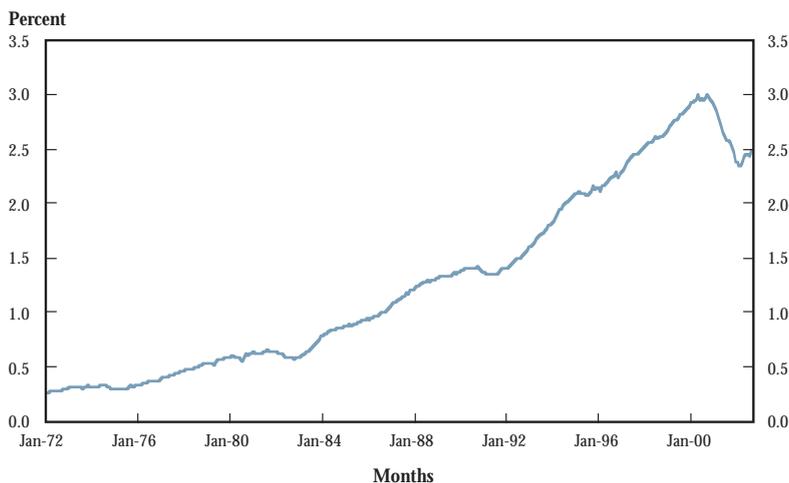
Temps are employed by—and thus appear on the payrolls of—the temporary-help firms that place them. They do not appear on the payrolls of the firms that use their labor services. Temporary-help firms are considered to be in the personnel supply services (PSS) industry.¹¹ Because PSS firms are part of the services sector, all temps are counted as employed in that sector. Little else is known about the industries to which temps are assigned.

PSS firms do, however, collect data on the types of jobs held by temps. In 1996 the largest share of temps, over 40 percent, were in administrative and clerical positions. Almost 30 percent worked in manufacturing jobs, about 10 percent were in service occupations, and more than 11 percent held professional jobs (Melchionno).

The trend in temporary employment. Temporary employment has grown tremendously over the last three decades, even faster than employment in the computer and data processing industry. As shown in

Chart 3

TEMPORARY EMPLOYMENT AS A SHARE OF NONFARM PAYROLL EMPLOYMENT



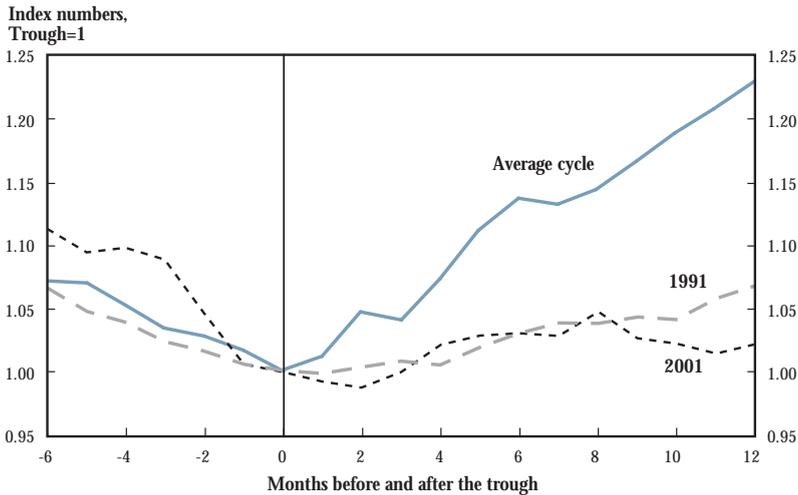
Note: Data on payroll employment in the personnel supply services industry are available only for February 1972 and later.

Source: Establishment Survey, Bureau of Labor Statistics

Chart 3, temporary employment rose from a mere 0.3 percent of total employment in 1972 to more than 2.4 percent at the end of 2002.¹² Today, over 3 million jobs are filled on a temporary basis.

Both demand and supply factors are driving this growth in temporary employment. Firms are demanding more temporary help in part due to increased competition; rising costs of hiring, firing, and providing benefits to relatively permanent workers; and a sufficiently low fee charged by temporary-help firms. Workers too are increasingly interested in holding temporary positions for a variety of reasons. Some prefer the flexibility that a temporary job affords. Others want the opportunity to try out different jobs before choosing a career path. In fields like information technology, temporary workers have at times even earned more than their nontemporary coworkers. A study by the National Association of Temporary Staffing Services found, however, that 76 percent of temps surveyed would have preferred a nontemporary position. This,

Chart 4
TEMPORARY EMPLOYMENT



Note: The pre-1990 average cycle consists of the three business cycles with troughs in March 1975, July 1980, and November 1982.

Source: Establishment Survey, Bureau of Labor Statistics

along with empirical evidence, suggests that the growth in temporary employment is being driven more by demand factors than supply factors (Bureau of Labor Statistics).

Temporary employment in recoveries. In addition to its notable long-term growth, temporary employment grew in the first year of the jobless recoveries. While the growth in temp jobs in the jobless recoveries did not come close to the 23 percent growth seen in the average recovery, it was nevertheless 7 percent in the 1991 recovery and a slower but solid 2 percent in the current recovery, as Chart 4 shows.¹³

The growth in temporary employment in the jobless recoveries stands out given that the economy ended the first year of the current recovery with 220,000 fewer jobs. This occurred because the economy created temporary jobs while destroying nontemporary jobs—jobs not in the PSS industry. A total of 288,000 nontemporary jobs were lost, enough to more than offset any gains in temporary employment. A similar substitution of temporary workers for nontemporary workers occurred in the 1991 recovery, but not in the average recovery or in *any*

recovery included in the average. Since about 75 percent of temporary workers would have preferred to be in nontemporary positions, this pattern of employment in jobless recoveries represents an involuntary shifting of workers into temporary positions.

Part-time employment

The use of part-time workers is an additional way for firms to achieve a more flexible workforce. Given the findings regarding the use of temporary workers, part-time employment would be expected to behave in a similar manner relative to full-time employment.

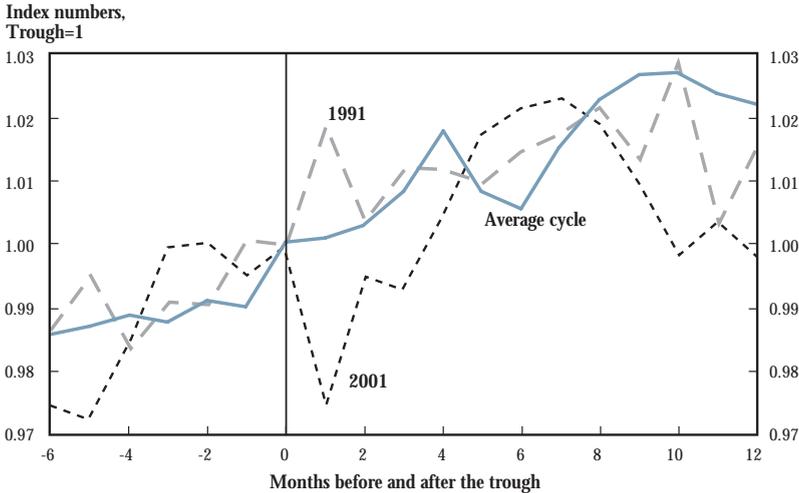
Part-time workers and jobs. To most people, part-time employees are workers who put in about half as many hours as full-time employees. The Bureau of Labor Statistics, however, has two ways of classifying people as part-time or full-time workers. The measure of part-time workers analyzed below counts people who usually work less than 35 hours a week across all jobs as part-time workers, regardless of the number of hours they actually worked that week.¹⁴

Most part-time jobs are held as a second job. The majority of them are clerical, sales, or service jobs requiring little skill and offering low pay and few, if any, benefits. The hourly wage paid for part-time jobs has been 50 to 60 percent of the wage for full-time jobs over the last 25 years (Tilly, King). Less than a quarter of part-time jobs offer health insurance, pensions, or sick leave, and less than half offer paid leave for vacations and holidays (Lettau and Buchmueller). There appears, then, to be a clear cost advantage to hiring workers on a part-time basis.¹⁵

The trend in part-time employment. Like temporary employment, part-time employment has been growing over the past several decades. The number of people working part time rose from almost 14 percent of all workers in 1968 to almost 18 percent in 2002. These numbers understate the true growth in part-time employment because they exclude part-time jobs held by people working at least 35 hours a week across multiple jobs. The vast majority of multiple-job holders work about half time in a second job (Tilly).

The growth of part-time employment is being driven by supply and demand factors. On the supply side, the increased presence in the labor force of women, students, and retirees, people who often prefer

Chart 5
PART-TIME EMPLOYMENT

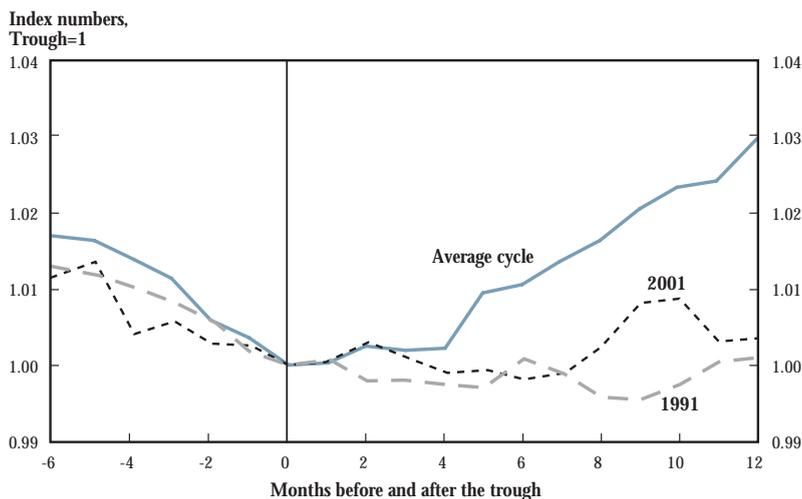


Note: The pre-1990 average cycle consists of the four business cycles with troughs in November 1970, March 1975, July 1980, and November 1982.

Source: Household Survey, Bureau of Labor Statistics

reduced-hour schedules, contributes to the rise in part-time employment. In fact, the share of workers in part-time jobs by choice rose from almost 8 percent in 1960 to more than 13 percent in 2002, according to BLS estimates. On the demand side, the relative expansion of the services sector—the sector that relies most heavily on a flexible supply of low-wage, low-skill workers—plays a role. The substitution of part-time for full-time workers allows service-sector firms to cut labor costs while also using labor more efficiently. Instead of hiring full-time workers and paying them for hours when there is limited demand for their services, firms instead can hire part-timers to work more intensely only during the hours they are needed. With the exception of the employment boom in the mid-to-late 1990s, the share of workers taking part-time jobs for economic reasons—either because they could not find full-time work or because they had their hours reduced due to a weak economy—has trended upward.

Chart 6
FULL-TIME EMPLOYMENT



Note: The pre-1990 average cycle consists of the four business cycles with troughs in November 1970, March 1975, July 1980, and November 1982.

Source: Household Survey, Bureau of Labor Statistics

Part-time employment in recoveries. Part-time employment was very volatile over past business cycles, as Chart 5 shows. Generally, though, it trended up through the recessions and into the first year of the recoveries. This was true both of the post-1990 cycles with jobless recoveries and of the average cycle.

Full-time employment, shown in Chart 6, fell in the early part of the jobless recoveries and was virtually flat a year into the recoveries. This is in stark contrast to the typical recovery, in which full-time employment rose for the entire period. Twelve months after the trough, it was almost three percentage points higher. Thus, part-time workers are substituted for full-time workers in jobless recoveries, just as temporary workers are substituted for nontemporary workers.¹⁶

Overtime

While companies that use low-skilled workers tend to hire and fire part-timers to adjust their workforce, companies requiring highly skilled employees find it more practical to adjust hours worked instead. They expand hours by requiring overtime when they want to increase production, and shrink hours rather than laying off hard-to-find trained workers when they want to produce less. And overtime does not increase benefits costs the way adding full-time workers does.

Overtime hours. The BLS considers overtime hours to be hours worked beyond regular (straight-time) hours and for which a premium is paid. It collects data on overtime hours only for production workers in the manufacturing industry, about 67 percent of all manufacturing workers. While part-time workers and temps are used more heavily than overtime in the service sector, anecdotal evidence suggests that some overtime is used there as well.

Overtime hours are costly since firms typically pay a premium of at least 50 percent per hour for overtime.¹⁷ In 2002, the average factory worker earned \$14.56 an hour for straight-time hours, so each hour of overtime typically cost \$21.84.

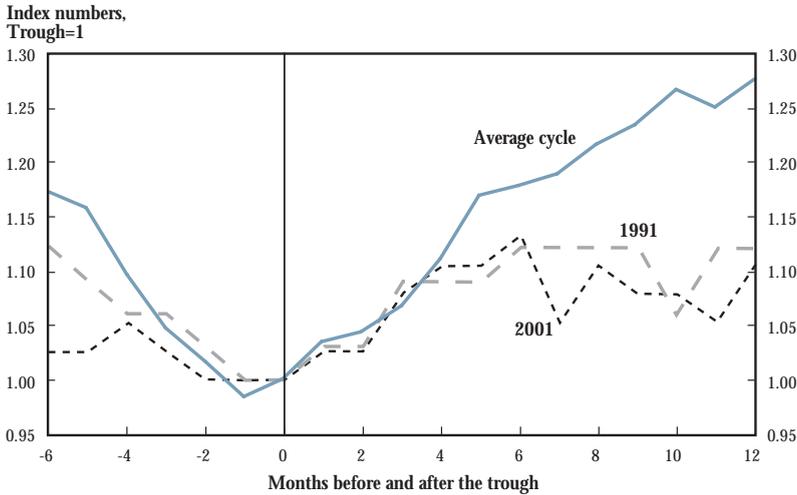
The trend in overtime. Overtime is another employment variable that has been slowly rising. In 2002, the average production worker put in about 4.1 hours of overtime a week, up from 2.4 hours a week in 1960. With more than 11 million factory workers in 2002, this extra overtime cost businesses more than \$408 million a week in additional wages. Thus, along with the growth in part-time and temporary employment, the growth in overtime represents a change of seismic proportions in the labor market.

The growth in overtime is purely driven by companies' desire to increase output without increasing payrolls. Although the growth has occurred throughout the manufacturing industry, the segments of the industry with the largest gains in employment are also the ones with the biggest increases in overtime. This change in the industry mix has contributed to the rapid growth (Hetrick).

Overtime in recoveries. Typically, overtime hours increase in recoveries, and this was true in the jobless recoveries as well, as Chart 7 shows. Indeed, in the first four months of the post-1990 recoveries,

Chart 7

AVERAGE WEEKLY OVERTIME HOURS OF PRODUCTION WORKERS IN MANUFACTURING



Note: The pre-1990 average cycle consists of the five business cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982.

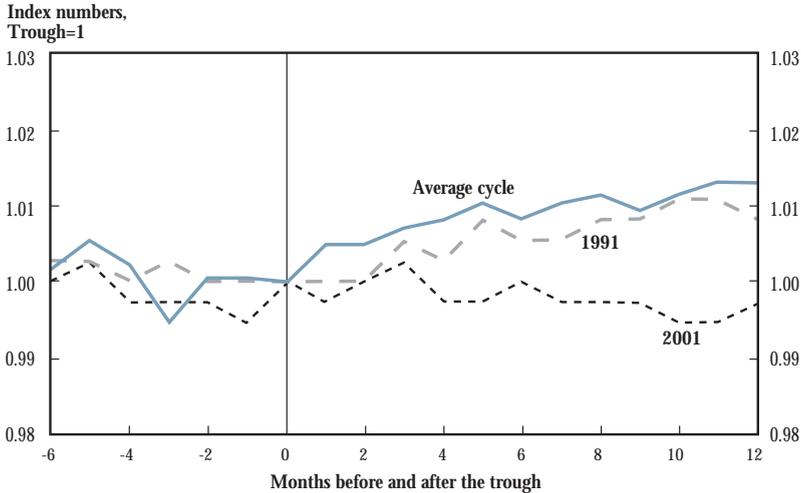
Source: Establishment Survey, Bureau of Labor Statistics

overtime grew at the same pace as in the average recovery. In later months, overtime hours in the jobless recoveries behaved atypically, remaining flat. Nevertheless, a year into each jobless recovery, overtime hours were at least 10 percent higher than at the trough of the preceding recession.

The behavior of overtime hours is especially interesting in light of the fact that straight-time (nonovertime) hours behaved differently in the two jobless recoveries. As Chart 8 shows, in the first year of the 1991 recovery, straight-time hours grew a little slower than in the typical recovery. In contrast, in the current recovery, they decreased slightly. The increase in overtime hours was large enough to offset the reduction in straight-time hours and leave average hours virtually unchanged. This makes the current recovery not only jobless, but “hourless” as well.¹⁸

Chart 8

AVERAGE WEEKLY STRAIGHT-TIME HOURS OF PRODUCTION WORKERS IN MANUFACTURING



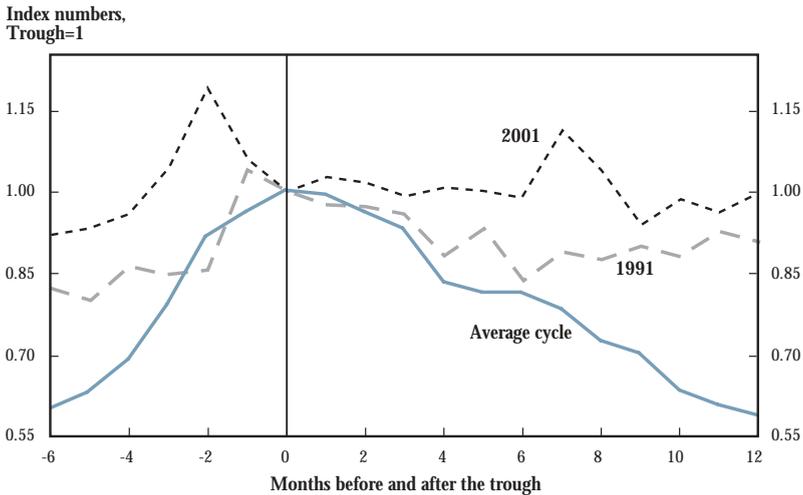
Note: Average weekly straight-time hours are calculated as the difference between average weekly hours and average weekly overtime hours. The pre-1990 average cycle consists of the five business cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982.

Source: Establishment Survey, Bureau of Labor Statistics

The growth in overtime in the jobless recoveries, along with the slower-than-average growth, or decline, in straight-time hours, suggests a gradual shift toward the substitution of overtime for straight-time hours in jobless recoveries. This substitution is consistent with the evidence regarding the use of temporary and part-time workers.

Collectively the evidence distinguishes the jobless recoveries as ones in which firms used just-in-time employment practices to a greater extent. This change in the pattern of labor-market behavior over the business cycle appears to be an extension of the longer term trends making the U.S. workforce more flexible.

Chart 9
JOB LOSERS ON TEMPORARY LAYOFFS



Note: The pre-1990 average cycle consists of the three business cycles with troughs in March 1975, July 1980, and November 1982.

Source: Household Survey, Bureau of Labor Statistics

III. JUST-IN-TIME EMPLOYMENT AND JOB LOSS

The previous section documented that the jobless recoveries share some surprising features that distinguish them from other recoveries. These features, driven by just-in-time employment practices, should have altered the nature of job loss in recoveries as well. This section examines job losses and long-term unemployment across business cycles and shows that this is indeed what happened.¹⁹

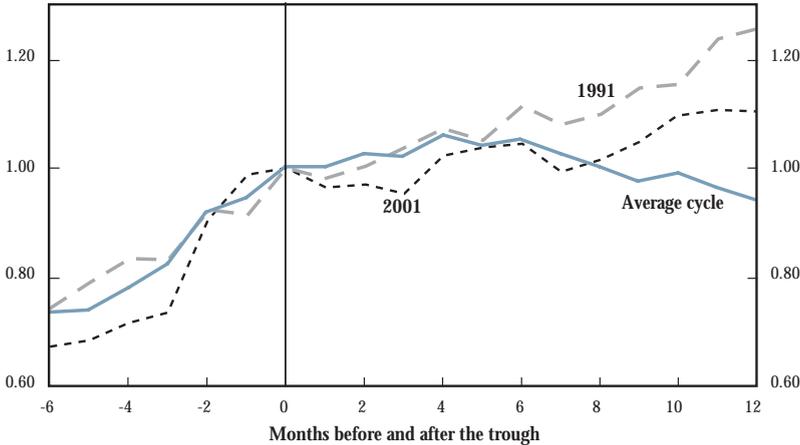
Job losers and the nature of job loss

About 50 percent of all unemployed workers are people who are involuntarily unemployed: They have either lost their jobs or had a temporary position come to an end.²⁰ These involuntarily unemployed workers can be divided into two groups, depending on whether their layoffs are temporary or nontemporary. Job losers on temporary layoffs are more likely to expect to be recalled to work.

Chart 10

JOB LOSERS ON NONTEMPORARY LAYOFFS

Index numbers,
Trough=1



Note: The pre-1990 average cycle consists of the three business cycles with troughs in March 1975, July 1980, and November 1982.

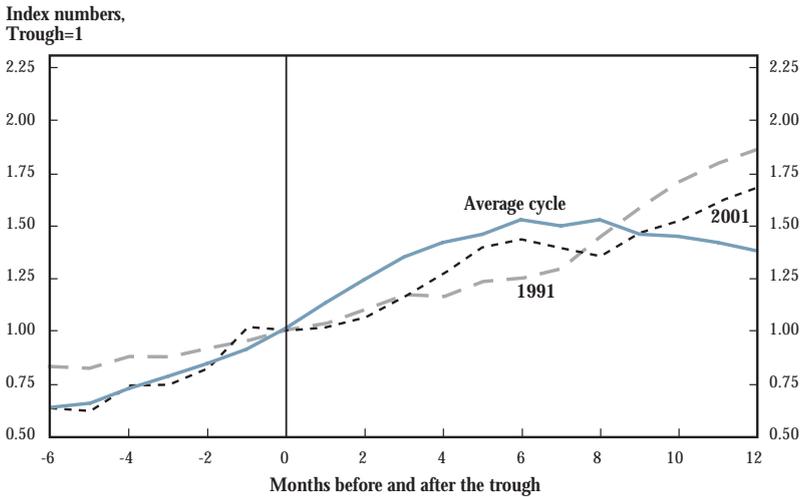
Source: Household Survey, Bureau of Labor Statistics

In a recovery, the number of job losers, both on temporary and nontemporary layoffs, should decrease if employment grows, and vice versa. This is exactly what happened in the average recovery. Employment rose and the number of job losers of each type fell, as Charts 9 and 10 show. But in the jobless recoveries, even though more people lost jobs overall, the number of job losers on temporary layoffs decreased, while the number on nontemporary layoffs increased.

This substitution of nontemporary for temporary layoffs is consistent with the evidence on the use of temps and overtime. In fact, this substitution is facilitated by the availability of temps and the option of using overtime. In an economy in which firms have greater flexibility in their use of labor inputs, they can afford to put additional workers on nontemporary layoff at a point in the business cycle when firms are uncertain about whether a recovery is indeed under way. If firms want to increase production to respond to an unexpected increase in demand for their goods and services, they can easily hire temps or have existing employees work overtime.

Chart 11

NUMBER OF WORKERS UNEMPLOYED FOR AT LEAST 27 WEEKS



Note: The pre-1990 average cycle consists of the five business cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982.

Source: Household Survey, Bureau of Labor Statistics

Long-term unemployment

Since many workers in the jobless recoveries found themselves put on nontemporary layoffs even when the recovery was well under way, it is likely that more people had longer bouts of unemployment in the jobless recoveries than in the typical recovery. Data on the number of workers unemployed long term are consistent with this. A bout of unemployment is considered to be long when it lasts beyond the point at which unemployment insurance benefits usually run out. In most states, this occurs after 26 weeks of unemployment.²¹

As seen in Chart 11, the number of workers unemployed for at least 27 weeks increased in the first eight months of the typical recovery, but then declined. A year into the recovery, 37 percent more workers suffered long-term unemployment than at the trough. In contrast, in the 1991 recovery, long-term unemployment at first grew more slowly than average, but then soared just when long-term unemployment started to fall in the

typical recovery. As a result, 12 months into the 1991 recovery, 86 percent more workers were coping with long-term unemployment than at the trough. In fact, 19 months into the recovery, 130 percent more workers were among the long-term unemployed than at the trough. Only after that point in the recovery did long-term unemployment start to decline. So far, the current recovery is roughly following the path of the 1991 recovery.²²

The behavior of long-term unemployment, a possible symptom of just-in-time employment practices, is thus another distinguishing characteristic of jobless recoveries. When combined with the behavior of temporary and part-time employment, overtime, and nontemporary layoffs, it paints a picture of jobless recoveries as episodes quite distinct from the typical recovery. And it highlights the role of just-in-time employment practices in shaping the nature of employment in the jobless recoveries.

IV. CAN JUST-IN-TIME EMPLOYMENT HELP EXPLAIN THE JOBLESSNESS OF RECENT RECOVERIES?

The previous sections have examined the distinctive nature of the jobless recoveries and the role played by just-in-time employment practices. This section considers whether just-in-time employment could have contributed directly or indirectly to the joblessness.

Direct effect

The use of temporary and part-time workers does not directly contribute to overall joblessness because these workers are included in estimates of total employment. It simply alters the composition of the workforce.

The use of overtime is a different story. By using existing employees more intensely, companies can eliminate workers or at least postpone hiring them. It is possible to estimate the extent of this effect.²³ In the first year of the 1991 recovery, the overtime incurred by the average factory worker per week rose by 0.4 hour. If businesses had hired full-time workers instead of increasing overtime, they would have hired almost 108,000 more factory workers. These job gains would have offset 60 percent of the 180,000 factory job losses that occurred during the

same period. In the first year of the current recovery, twice as many factory workers lost jobs as in the 1991 recovery, while average weekly overtime again rose 0.4 hour. Had overtime not increased, almost 18 percent of those who lost factory jobs—more than 71,000 workers—could have remained employed.²⁴ The wage bill from retaining these full-time workers would have come to almost \$42 million per week, just 4 percent of the more than \$1 billion spent in total on overtime in the average week of the recovery.²⁵ These estimates give a sense of how much firms were willing to spend for a more flexible workforce and the extent to which overtime contributed to the joblessness of recent recoveries.

Indirect effect

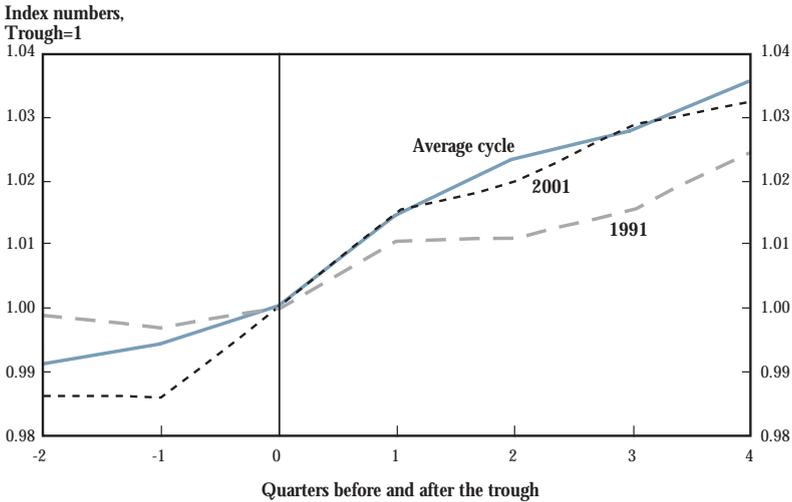
The very availability of just-in-time employment practices can contribute indirectly to the joblessness of a recovery. Just-in-time employment lets firms wait to see that a recovery is robust before hiring, yet still expand production on short notice by hiring temps and using overtime. It allows them to lay off workers and delay hiring to a greater extent, which is exactly what happened in the jobless recoveries. In this manner, firms' ability to use labor more flexibly contributed indirectly to the absence of job growth in the first year of the jobless recoveries.

A second way in which the more flexible use of labor inputs can contribute to the joblessness of a recovery is by raising productivity growth. If firms are not fully utilizing full-time, nontemporary workers, then they can operate more efficiently by shifting to part-time and temporary workers who can be employed more flexibly across shifts and job tasks.²⁶ These adjustments in the use of the workforce could result in more output being produced with fewer workers. If firms can get more output from each hour worked by an *existing* employee, then they have less need to hire additional workers to increase production.

Productivity, measured by output per hour, did grow in the first year of the jobless recoveries, but not unusually so.²⁷ As Chart 12 shows, in the 1991 recovery productivity grew 2.4 percent, which was more than a full percentage point slower than in the typical recovery. Productivity performed better in the current recovery, growing 3.2 percent over that period, just a little slower than average. Together then, the jobless recoveries were not characterized by above-average productivity growth.²⁸

Chart 12

NONFARM PRODUCTIVITY (OUTPUT PER HOUR)



Note: The pre-1990 average cycle consists of the five business cycles with troughs in February 1961, November 1970, March 1975, July 1980, and November 1982.

Source: Commerce Department, Bureau of Economic Analysis

Nevertheless, productivity growth still probably contributed to the joblessness of recent recoveries. The fact that productivity managed to grow at an average rate in those recoveries, while employment and output grew much less than average, if at all, is somewhat remarkable. With relatively strong productivity growth, firms could have increased production without expanding payrolls as much as in the typical recovery. Thus, along with the growth in overtime, the relatively rapid growth in productivity helps explain the joblessness.

To the extent that productivity growth can explain the joblessness of recent recoveries, it was not solely driven by the use of just-in-time employment practices. Investment in information technology and the labor savings from the automation of tasks also drove productivity growth. It played a larger role, however, in the first jobless recovery than in the current one. Spending on information technology for the most part continued to grow through the 1990-91 recession and the first year of the subsequent recovery. It fell sharply, though, in the 2001 recession and was below its prerecession level for much of the first year of the

current recovery. This leaves productivity gains in the current recovery determined to a relatively greater extent by firms' efforts to lower costs by shrinking payrolls and working existing employees more intensely. Just-in-time employment practices certainly helped make this possible.

Finally, any weakness in employment growth from the greater use of just-in-time employment practices itself contributes to joblessness. Without employment growth to support consumption growth, a recovery will be relatively weak. And when a recovery is weak, companies have less reason to hire workers and expand their operations.

V. CONCLUSION

The first year of each of the two post-1990 recoveries was clearly jobless. Apart from the joblessness, these recoveries have another feature that distinguishes them from the typical recovery: the greater use of just-in-time employment practices. Companies substituted temporary and part-time jobs for nontemporary and full-time jobs and increased overtime hours while reducing straight-time hours. These substitutions in employment and hours were not seen in the typical recovery.

Just-in-time employment practices give firms more flexibility in employing labor, which is especially valuable early in recoveries. In the jobless recoveries, they allowed firms to expand production on short notice in response to signs of increased demand and to wait for signs that the pickup in demand would be sustained before hiring workers on a more permanent basis. As a result, firms kept trimming payrolls well into those recoveries, and more of the laid-off workers suffered long-term bouts of unemployment than in the typical recovery.

These findings are largely positive for the economy overall. It is perfectly rational for firms to use workers more flexibly if they can, especially when demand is tentative. And doing so results in a more efficient use of resources that allows the economy to adjust more quickly to shocks. It may even contribute to recessions being shorter and milder, although to date this has been hard to prove because the effect of just-in-time employment practices on output is largely indirect.

For workers, the impact of this article's findings is mixed. The increase in job opportunities for temporary and part-time workers makes it easier for some people to enter the labor force or change jobs

and allows workers to have more flexible schedules. Overtime offers workers the opportunity to earn additional income. But the evidence suggests that people often work overtime more because they fear losing their jobs if they refuse than because they want to earn additional income. Similarly, most workers are being driven into temporary and part-time jobs because they cannot find full-time, hopefully more permanent, work. Because temporary and part-time jobs offer less job stability, lower pay, and fewer benefits, their greater prevalence in recoveries could inhibit consumption growth and thus help perpetuate the joblessness of a recovery.

It is too soon to tell if future recoveries will also be jobless. There is every reason to expect, however, that the use of just-in-time employment practices will persist. And the enhanced flexibility and greater productivity growth these practices afford will help determine employment growth in future recoveries.

ENDNOTES

¹The National Bureau of Economic Research (NBER)—the arbiter of business-cycle turning points—cites employment as one of the four most important indicators it considers in dating the beginning and ending of a recession.

²This literal definition of a jobless recovery has the advantage that it avoids dispute over whether slower-than-average employment growth in a recovery is sufficiently slow to warrant the recovery's being called "jobless." It takes the more extreme view that any job growth in a recovery prevents the recovery from being truly jobless.

³The use of the term "recovery" is conventional. It does not, however, appear in the seminal work of Burns and Mitchell on the stages of business cycles.

⁴The NBER typically announces peak and trough dates with a lag of one to two years (see *www.nber.org*). For example, in the case of the 1990-91 recession, the joblessness of the subsequent recovery probably contributed to the delay of 21 months in dating the recession's trough.

In August 2002, the Federal Reserve Bank of Philadelphia surveyed professional economic forecasters regarding the date they thought the NBER would ultimately say marked the trough of the 2001 recession. December 2001 was the top choice, selected by 39 percent of forecasters. November 2001 and January and February 2002 were each cited by a third as many forecasters.

⁵The business cycles that started with the 1948-49, 1953-54, and 1957-58 recessions are excluded from the average because data on most of the labor-market variables examined in this article are not available for them. In addition, employment growth in the recovery phase of those cycles was unusually strong. Consequently, if the pre-1960 cycles were included in the average they would only strengthen the article's findings by making the two most recent recoveries appear even more jobless.

⁶For an earlier analysis of the distinctive nature of the jobless recoveries, see Kahn.

⁷These data come from the Current Establishment Survey (also known as the payroll survey) of the Bureau of Labor Statistics (BLS). An alternative source of employment data is the BLS's Current Population Survey (also known as the household survey). Unlike the establishment survey, the household survey includes agricultural and self-employed workers in its employment estimates. Although it is based on a larger sample, its estimates seem to be noisier than those from the payroll survey (National Bureau of Economic Research). Thus, the establishment survey is more commonly used as a measure of employment growth. For the analysis of this article, it does not matter which survey is used. The qualitative results regarding the joblessness of the post-1990 recoveries are unaffected. The household survey shows negligible employment growth of 0.42 percent in the first year of the 1991 recovery and 0.27 percent for the same period in the current recovery. These growth rates compare to employment growth of 2.5 percent in the average recovery. Therefore, the post-1990 recoveries were essentially jobless even when evaluated using data from the household survey.

⁸Schweitzer argues that the jobless recoveries were partly jobless because of an unusual decline in the labor force participation rate—the share of the population working or looking for work—during them. However, the labor force participation rate was unusually high in these recoveries, at least 66 percent, which is not

far from its historical peak. In the average recovery, it was at most 62 percent. This difference largely reflects the long-term steady increase in the participation rate due to the rise of women and older males in the workforce in recent decades. It also may have made it more likely that the participation rate would have fallen during the jobless recoveries since the labor force would have consisted of more workers who were not strongly attached to it.

⁹In its original formulation, Okun's law stated that every percentage point increase in output growth above its trend growth rate per year is associated with a rise in the employment rate of a third of a percentage point. More recently, the increase in the employment rate has been estimated to be a half percentage point (Gordon).

¹⁰Dixit and Pindyck discuss how firms make investment decisions under uncertainty, including decisions about labor inputs.

¹¹Technically, the PSS industry consists of two types of firms: employment agencies, which provide permanent placements and recruiting services and constitute 10 percent of PSS employment, and help-supply services firms, which provide shorter term placements. The difference between these types of firms is becoming blurred because they are increasingly offering both types of services (Bureau of Labor Statistics).

There are two disadvantages of the BLS approach to estimating temporary employment. First, it overstates temporary employment by counting the non-temporary staff of temporary employment agencies as temps. This overstatement should be relatively small. Second, it omits the self-employed and independent contractors who work on a fee-for-service basis and thus do not appear on any payrolls. It also omits seasonal and other temporary workers who are hired directly for the firms that use them rather than by temporary employment agencies. These are more sizable omissions given the growth in self-employment in the U.S. since 1990.

¹²The notable exceptions to this long-term growth were the recessions, during which temporary employment fell. In all the recessions shown in Chart 3, temporary employment fell to a much greater extent than nontemporary employment.

¹³The difference in growth rates in the recoveries might not be as dramatic as it appears, given the long-run upward trend in temporary employment. In the average recovery, temporary employment was much lower than in the jobless recoveries. The 23 percent growth experienced in the average recovery was thus from a much smaller base than the 7 percent growth experienced in the 1991 recovery and the 2 percent growth experienced in the 2001 recovery. As a result, in the first year of the average recovery, more than 98,000 temporary jobs were created; during the same period in 1991, 101,000 temp jobs were created; and in 2001, 68,000 jobs were created. Thus, the difference in the number of temp jobs created in the jobless recoveries relative to the average recovery is not as extreme as suggested by the percentage growth rates.

¹⁴The BLS's two measures of part-time employment are both estimated from its survey of households. In that survey, the BLS asks both whether the person was at work less than 35 hours per week in total across all jobs during a particular week and whether the person usually worked less than 35 hours per week. The first question gives rise to what the BLS calls its "persons at work part time" series. The second gives rise to its "part-time workers" series.

Each series has its drawbacks. For example, the “persons at work” series counts a full-time worker who worked less than 35 hours because of an illness as a part-time worker, contrary to what most people think of as a part-time worker. The “part-time workers” series would not include those who usually work full time but were forced to work fewer than 35 hours for economic reasons (e.g., the factory in which they work might have only operated for four eight-hour days during the week due to weakness in the economy). It also would not include a person who works a total of 50 hours a week, 25 hours in each of two part-time jobs, someone most people would consider to be a part-time worker. Thus the “part-time workers” series overstates the number of full-time workers and understates the number of part-time workers relative to what people think of as part-time and full-time workers, while the “at work” series does the reverse. In addition, to compare “full-time persons at work” to “part-time persons at work,” the latter must be subtracted from “total persons at work” since the former series is not available. And “total persons at work” is not available seasonally adjusted before 1993.

¹⁵Of course, there may be an offsetting effect on costs if the quality of part-time workers is lower.

¹⁶Chart 6 also shows that full-time employment fell in past recessions, as one would expect. Along with Chart 5, it is further evidence that the rise in part-time employment in recessions was mostly involuntary on the part of workers.

¹⁷The Fair Labor Standards Act states that employees covered by the act must receive at least 1.5 times their regular hourly wage for all hours worked in excess of 40 hours in a workweek (U.S. Department of Labor).

¹⁸What appears to be substitution of overtime hours for straight-time hours may be masking differences across or even within industries in the response of hours in the jobless recovery. Some firms may be increasing production levels by having employees work more overtime, while other firms may be reducing employees’ hours instead of eliminating jobs.

¹⁹It could be useful to look at data on layoffs as well, but such data are not available far enough back to allow a comparison of the current business cycle to previous ones.

²⁰The remaining 50 percent of unemployed workers are new entrants or re-entrants to the labor force who have not yet found jobs and people who voluntarily left their jobs and are looking for new ones.

²¹The states of Massachusetts and Washington are the exceptions. They allow workers to collect unemployment compensation for up to 30 weeks (Coven).

²²One factor that is probably contributing to the rise in long-term unemployment, and might imply an even worse outcome in the current recovery, is the change in the mix of who is employed. Since managerial and professional workers have been increasing as a share of all workers, they have also been increasing as a share of the unemployed in recoveries. In the first year of the 1982 recovery, 7.5 percent of the unemployed were managerial and professional workers. That share rose to 8.7 percent in the 1991 recovery and soared to 18 percent in the current recovery. Since managerial and professional workers tend to take longer to find new jobs once laid off, their greater presence among the unemployed probably contributed to the rise in long-term unemployment.

²³The calculations here follow Hetrick.

²⁴Overtime increased in the first year of the pre-1990 recoveries as well and could have supported additional employment growth. For example, in the recoveries from 1970 to 1989, employment would have grown about 45 percent more if firms had not increased overtime.

²⁵According to the BLS, in the average week in 2002, almost 46 million overtime hours were worked by production workers in manufacturing. Each hour cost at least 1.5 times the average hourly earnings of \$14.56, for a total cost of at least \$1.004 billion.

²⁶Such efficiencies can also be achieved in part by allocating existing full-time, nontemporary workers more flexibly across jobs on a production line. This is another example of just-in-time employment. It is, however, very difficult to quantify.

²⁷Since the measure of employment used in this article is nonfarm payroll employment, the productivity measure used is nonfarm productivity.

²⁸At first glance, the productivity data appear to be at odds with the common view that productivity growth was unusually rapid in recent years, but there is no discrepancy. In the late 1990s and early 2000s, productivity growth was well above its long-term average on a year-over-year basis. However, the analysis in this article focuses on growth in the first year of a recovery. Productivity growth typically exceeds its long-run average in the first year of a recovery. Thus, compared to the growth of productivity in the first year of the average recovery, productivity in the 1991 and 2001 recoveries was not above average.

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