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The Unemployment Rate and the Potential Supply of Labor

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ABSTRACT

This report examines alternatives to the official unemployment rate to ascertain the pool of labor potentially available to meet rising employer demand during the more than 8-year-old economic expansion. The analysis provides one explanation for the current low-inflation environment despite an official unemployment rate that is below the full employment rate or non-accelerating inflation rate of unemployment. The report will not be updated.

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Summary

Many eagerly await the release of the unemployment rate by the U.S. Bureau of Labor Statistics (BLS) each month. The Federal Reserve Board, for one, monitors the unemployment rate's fluctuations for indications of the availability of labor relative to employer demand (i.e., the tightness of the labor market) and, in turn, what such tightness portends for the inflation rate. The unemployment rate represents the share of persons *in the labor force* (i.e., the employed and unemployed) who lack jobs and are actively seeking them. A low and falling unemployment rate, such as experienced during the latter half of the 1990s, suggests there is a relatively small and dwindling number of workers available to fill jobs. This has prompted some analysts to speculate that we are running out of workers to perpetuate the nation's now longest peacetime expansion in the post-war period.

The unemployment rate does not tell the whole story about how much labor remains available to meet employer demand, however. As defined by the BLS, the unemployment rate is the fraction of the civilian noninstitutional population age 16 or older who were not employed during the week in which the Current Population Survey is conducted and who sought work in the prior 4-week period. This measure understates the potential supply of labor because it captures neither the "hidden unemployed" nor the "underemployed." The inclusion of these two groups provides a more complete tale of the amount of untapped labor in the population and one explanation for the inflation rate's failure to accelerate thus far in response to a seeming dearth of workers.

The hidden unemployed, unlike the officially unemployed, are *not in the labor force*. The notion underlying the concept of the hidden unemployed is that, although these persons are less firmly attached to the labor market than are those officially counted as unemployed, they too desire and are available for employment and have searched for jobs in the not-too-distant-past; and consequently, they should be considered part of the current supply of labor. In July 1999, there were somewhat over 1.1 million "marginally attached persons." If they were added to the official count of unemployed persons in that month (slightly above 6.3 million), it would have raised the potential supply of labor by 18% to nearly 7.5 million individuals and the unemployment rate from 4.5% (the official, not seasonally adjusted, unemployment rate in July 1999) to 5.2%. In addition, there were over 3.5 million employed persons who would have preferred to supply more *hours of labor* to employers in July 1999. If these underemployed or partially employed persons were included with (fully) unemployed workers, the size of the untapped labor supply would have been 56% larger or nearly 9.9 million. And, if marginally attached as well as underemployed persons were added to the unemployed, the number of individuals potentially available to meet employer demand would have been 74% larger or almost 11 million. The inclusion of both these groups would have produced a unemployment rate of 7.7% compared to July's official unemployment rate of 4.5%. Just such comparisons might have underpinned Federal Reserve Board Chairman Alan Greenspan's observation while testifying before the Joint Economic Committee in June 1999 that "labor market tightness has not, as yet, put the current expansion at risk."

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The Unemployment Rate and the Potential Supply of Labor

Many public and private institutions as well as individuals eagerly await the release of the unemployment rate, usually on the first Friday of each month, by the U.S. Bureau of Labor Statistics (BLS). The Federal Reserve Board, for one, monitors the unemployment rate's fluctuations for indications of the availability of labor relative to employer demand (i.e., the tightness of the labor market) and, in turn, what such tightness portends for the inflation rate. The Board could act to slow the pace of economic growth if it thought too much of an imbalance in the labor market would cause the rate of increase in prices for goods and services to accelerate.

The unemployment rate represents the share of persons *in the labor force* (i.e., the employed and unemployed) who lack jobs and are actively seeking them. A low and falling unemployment rate, such as experienced during the latter half of the 1990s, suggests there is a relatively small and dwindling number of workers ready to fill already existing or new positions. This has prompted some analysts to speculate that we are running out of workers to perpetuate the now longest peacetime expansion in the postwar period.

The Unemployment Rate

Following the end of the 1990-1991 recession in March, the unemployment rate took an unusual course. To begin with, it actually rose from 6.8% at the bottom of the recession to the 7% range from October 1991 through June 1993. (See **Table 1.**) The unemployment rate then fell below what many economists consider to be full employment rate or the non-accelerating inflation rate of unemployment (NAIRU): between September 1994 and June 1997, the unemployment rate was in the 5% range before dropping into the 4% range where it remains to date. What has many observers perplexed is that even at such a low level by historical standards, the seeming scarcity of workers has not yet exerted much upward pressure on the inflation rate.

The unemployment rate does not tell the whole story about how much labor remains available to meet employer demand, however. As defined by the BLS, the unemployment rate is the fraction of the civilian noninstitutional population age 16 or older who were not employed during the week in which the Census Bureau conducts the Current Population Survey (CPS) and who sought work in the prior 4-week period. This measure understates the potential supply of labor because it neither captures the "hidden unemployed" nor the "underemployed." These two groups, in combination with the unemployment rate, provide a more complete tale of the potential or untapped supply of labor and one explanation for the inflation rate's

failure to accelerate thus far in response to the seeming dearth of workers. An analysis of these two groups appears below.

Table 1. The Civilian Unemployment Rate

	1991	1992	1993	1994	1995	1996	1997	1998	1999
January	6.4	7.3	7.3	6.6	5.6	5.6	5.3	4.6	4.3
February	6.6	7.4	7.1	6.6	5.4	5.5	5.3	4.6	4.4
Mar.	6.8	7.4	7.0	6.5	5.4	5.5	5.1	4.7	4.2
April	6.7	7.4	7.1	6.4	5.8	5.5	5.0	4.3	4.3
May	6.9	7.6	7.1	6.1	5.6	5.6	4.9	4.4	4.2
June	6.9	7.8	7.0	6.1	5.6	5.3	5.0	4.5	4.3
July	6.8	7.7	6.9	6.1	5.7	5.5	4.9	4.5	4.3
August	6.9	7.6	6.8	6.0	5.7	5.1	4.9	4.5	—
September	6.9	7.6	6.7	5.9	5.7	5.2	4.9	4.5	—
October	7.0	7.3	6.8	5.8	5.5	5.2	4.7	4.5	—
November	7.0	7.4	6.6	5.6	5.6	5.4	4.6	4.4	—
December	7.3	7.4	6.5	5.5	5.6	5.4	4.7	4.3	—
Annual average	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	—

Source: U.S. Bureau of Labor Statistics. Seasonally adjusted monthly data.

Note: Elsewhere in this report, the *not* seasonally adjusted monthly unemployment rate is compared to other measures of labor utilization because seasonal adjustment factors have not yet been developed for the other statistical series.

The Potential Supply of Labor

While testifying before the Joint Economic Committee on June 17, 1999, Federal Reserve Board Chairman Alan Greenspan spoke of the strong demand for labor reducing the “pool of available workers.” This pool is not limited to already active jobseekers, but also includes individuals who would like to work but haven’t recently looked for jobs and individuals who would like to work longer hours than they are presently.

Marginally Attached Persons

What distinguishes the so-called hidden unemployed from the officially unemployed group is that the former are *not in the labor force*. The notion

underlying the concept of hidden unemployment is that, although these persons are less firmly attached to the labor market than are persons officially counted as unemployed, they too desire and are available for employment and have searched for jobs in the not-too-distant past; and consequently, they should be considered part of the current supply of labor.

Since 1967, the BLS has asked CPS respondents who are not in the labor force about whether they want a job. With the major revision of the CPS in 1994, the BLS definition of individuals outside the labor force who would like to work has changed.¹ Currently, the hidden unemployed or “marginally attached” group is composed of individuals in the civilian noninstitutional population age 16 or older who: (1) desire jobs, (2) are available to work and (3) have engaged in job search in the past 12-month period. As noted above, to be considered unemployed an individual must have searched for work in the 4-week period preceding the survey week.

From 7% to 10% (or 4.8 to 6.2 million) of those who were not in the labor force between 1994 and 1998 also reported that they wanted a job.² A much smaller number who indicated that they desired employment met the two other criteria for classification as marginally attached persons (1.1-1.8 million). Although the hidden unemployed are a small group when compared to the official count of unemployed persons — 1.1 million and 6.3 million, respectively, in July 1999 — their addition to the unemployed members of the labor force raised the untapped pool of workers by 18% to almost 7.5 million individuals in that month.

People with a marginal attachment to the labor force offer various reasons for failing to have recently sought employment. The BLS categorizes these as economic reasons (e.g., thinks no work is available, could not find work, lacks schooling or training, and discrimination including employer thinks person is too old) and as noneconomic reasons (e.g., child-care and transportation problems, family responsibilities, attending school or training, and poor health). Persons within the marginally attached group who offer economic reasons typically are referred to as “discouraged workers.” In July 1999, they totaled 290,000 or about one-fourth of the larger group.

It typically was assumed that discouraged workers would be more likely than other marginally attached persons to enter the labor force in a full-employment economy such as currently is being experienced. According to a recent analysis, however, discouraged workers in 1994 exhibited weaker labor force attachment and jobholding in 1995 than other marginally attached persons — perhaps because the former’s reasons for nonparticipation and non-employment were more intransigent.³

¹ Castillo, Monica D. Persons Outside the Labor Force Who Want a Job. *Monthly Labor Review*, July 1998. (Hereafter cited as Castillo, *Persons Outside the Labor Force Who Want a Job*.)

² Unless otherwise indicated, all data in this report are available from the BLS at [<http://stats.bls.gov/proghome.htm>].

³ Castillo, *Persons Outside the Labor Force Who Want a Job*.

As shown in **Table 2**, marginally attached individuals numbered slightly over 1.3 million on average in 1998 and they shrank further through the first 7 months of 1999 to somewhat more than 1.1 million. Presumably, their ranks have dwindled because favorable economic conditions enticed them to more actively seek jobs and thereby enable the labor force to continue to grow. Between July 1994 and July 1999, the number of marginally attached individuals declined by 711,000. Over the same period, the size of the labor force swelled by 8.3 million.⁴ At most then, marginally attached persons might have allowed the labor force to be one-tenth larger than it otherwise would have been over the past 5 years.

Table 2. The Number of Marginally Attached Persons
(numbers in thousands)

	1994	1995	1996	1997	1998	1999
January	2,120	1,783	1,737	1,615	1,479	1,358
February	1,951	1,721	1,838	1,546	1,478	1,279
March	1,832	1,732	1,584	1,471	1,426	1,245
April	1,770	1,390	1,516	1,480	1,278	1,257
May	1,659	1,504	1,475	1,431	1,213	1,148
June	1,777	1,574	1,684	1,428	1,213	1,228
July	1,844	1,568	1,490	1,281	1,328	1,133
August	1,726	1,510	1,436	1,298	1,251	—
September	1,858	1,583	1,518	1,363	1,377	—
October	1,663	1,587	1,447	1,284	1,242	—
November	1,674	1,542	1,503	1,337	1,240	—
December	1,810	1,619	1,463	1,453	1,196	—
Annual average	1,807	1,593	1,558	1,416	1,310	—

Source: U.S. Bureau of Labor Statistics. Monthly data are not seasonally adjusted.

⁴ Monthly data for the marginally attached group are not available on a seasonally adjusted basis. It is expected that seasonal adjustment will come later when BLS has more experience with the new series. Until such time, comparisons should be made for the same month year-over-year rather than within the same year month-to-month. When monthly data for the marginally attached group are used in conjunction with other labor force series not seasonally adjusted data for the latter should be used as well.

Involuntary Part-Time Workers

The vast majority of part-time workers — more than four out of five — want to be employed fewer than 35 hours per week. They are referred to as voluntary part-timers. The remaining workers employed between 1 and 34 hours a week want to work longer hours. They are referred to as involuntary part-timers, the partially employed or underemployed,⁵ or persons employed part-time for economic reasons. Although this group has increased as a share of total part-timers in recent decades, cyclically induced fluctuations aside, involuntary part-time workers remain a small share of the labor force. In 1998, for example, persons employed part-time for economic reasons comprised less than 3% of the civilian labor force.⁶

Just as the unemployment rate continued to rise for some time after the end of the recession in March 1991, so too did this measure. The number of persons involuntarily employed part-time did not start to decrease until 1994, although some of the decline from 6.5 million in 1993 to 4.6 million in 1994 is due to the revision of the CPS that began in that year.⁷

The extent of underemployment has continued to shrink since 1994 with the rate of decrease picking up substantially in the late 1990s. (See **Table 3**.) In 1995, the number of workers involuntarily employed part-time dropped by 3.3% and in 1996, by 3.5%. In 1997, the pace quickened to 5.7% and in 1998, the extent of underemployment dropped by 9.9%. This trend likely is related to the initially weak recovery in the labor market from the 1990-1991 recession and more rapid job growth later in the decade.

Most recently, there were over 3.5 million workers who would have preferred to supply more hours of labor to employers. If these underemployed workers were included with (fully) unemployed workers, the size of the potential labor supply would have been 56% larger or nearly 9.9 million rather than 6.3 million workers. And, if marginally attached as well as underemployed persons (almost 4.7 million) were added to the unemployed, the amount of untapped labor available to meet employer demand would have been 74% larger or almost 11 million individuals.

⁵ Another definition of underemployment includes persons working in jobs for which they are over qualified.

⁶ For additional information on part-time workers, see: CRS Report 98-695, *Part-Time Job Growth and the Labor Market Effects of Policy Responses: An Overview*, by Linda Levine.

⁷ Before 1994, people's desire and availability for full-time jobs were inferred. From 1994 onward, CPS respondents have been asked explicitly about their desire and availability for full-time work: "[T]he reduced number of involuntary part-timers results almost entirely from the direct question about desire for full-time work; the question on availability has little affect." Nardone, Thomas. *Part-Time Employment: Reasons, Demographics, and Trends. Journal of Labor Research*, v. 16, no. 3, summer 1995. p. 289.

Table 3. The Number of Workers Involuntarily Employed Part-Time
(numbers in thousands)

	1994	1995	1996	1997	1998	1999
January	5,235	4,848	4,320	4,541	4,299	3,815
February	4,857	4,567	4,597	4,419	4,042	3,594
March	4,987	4,566	4,569	4,277	4,011	3,703
April	4,538	4,245	4,299	4,244	3,649	3,316
May	4,649	4,351	4,175	3,891	3,602	3,281
June	5,063	4,740	4,577	4,258	4,033	3,641
July	4,841	4,749	4,646	4,279	4,025	3,537
August	4,417	4,553	4,407	4,036	3,508	—
September	4,017	4,217	4,012	3,638	3,112	—
October	4,132	4,092	3,973	3,602	3,086	—
November	4,368	4,335	3,860	3,768	3,159	—
December	4,408	4,410	4,352	3,869	3,455	—
Annual average	4,625	4,473	4,315	4,068	3,665	—

Source: U.S. Bureau of Labor Statistics. Monthly data are not seasonally adjusted.

Alternative Measures of Labor Utilization

Since the mid-1970s, the BLS has calculated and regularly published alternatives to the official unemployment rate because it is used for different purposes (e.g., as a gauge of current economic conditions, a measure of economic hardship and as an indicator of unused or underutilized human resources) and therefore, “may not perfectly suit the needs or interests of all people.”⁸ These measures range from narrower (e.g., job losers and workers who have completed temporary jobs as a percent of the civilian labor force) to broader (e.g., the unemployed plus discouraged workers as a percent of the civilian labor force plus discouraged workers) than the official unemployment rate (i.e., the unemployed as a percent of the civilian labor force, U-3). The two broadest alternatives, which relate to marginally attached persons and underemployed persons, are discussed below.

⁸ Bregger, John E., and Steven E. Haugen. BLS Introduces New Range of Alternative Unemployment Measures. *Monthly Labor Review*, October 1995. p. 20.

U-5 is defined as unemployed and all marginally attached persons as a percent of the civilian labor force and all marginally attached persons. (Because marginally attached workers are added to the numerator, they also must be added to the denominator.) U-6 is more expansive, adding involuntary part-time workers to the mix. As shown in **Table 4**, both these measures suggest that there is more labor available to meet employer demand than revealed by the official unemployment rate.

Table 4. Alternative Measures of Labor Utilization
(percentages)

Measures	1994	1995	1996	1997	1998	July 1999
U-3 ^a	6.1	5.6	5.4	4.9	4.5	4.5
U-5 ^b	7.4	6.7	6.5	5.9	5.4	5.2
U-6 ^c	10.9	10.1	9.7	8.9	8.0	7.7

Source: U.S. Bureau of Labor Statistics. Monthly data are not seasonally adjusted.

^aThe official unemployment rate, i.e., the number of unemployed persons as a share of the civilian labor force.

^bThe second broadest alternative measure of labor utilization, i.e., the number of unemployed and all marginally attached persons as a share of the civilian labor force and all marginally attached persons.

^cThe broadest alternative measure of labor utilization, i.e., the number of unemployed, marginally attached and underemployed persons as a share of the civilian labor force and marginally attached persons.

Concluding Remarks

The preceding analysis implies that we are not yet close to running out of labor to fill newly created and already existing jobs in the still expanding U.S. economy. By adding to the number of unemployed workers those persons who indicated that they are marginally attached to the labor force and those employed individuals who reported that they preferred to work more hours than they are currently, the untapped pool of workers in July 1999 was 10,989,000 rather than 6,319,000. Based on these additions, the unemployment rate might be more nearly 7.7% than 4.5% (the official unemployment rate in July 1999). Just such a comparison might have underpinned Chairman Greenspan's observation while testifying before the Joint Economic Committee in June of this year that "labor market tightness has not, as yet, put the current expansion at risk." Rather than a shortage of labor *per se*, what might well produce more rapid wage and price increases in the coming months is a mismatch between the skills possessed by available workers and the skills demanded by employers for the available jobs.