

# FRBSF WEEKLY LETTER

Number 95-29, September 8, 1995

## Unemployment

In both policy debates and the popular press, discussions of the employment situation in the U.S. tend to focus heavily on the overall civilian unemployment rate. But the overall unemployment rate is just one aspect of the employment situation, and a focus on this one number can conceal interesting and important changes in the employment outlook for different groups in the labor force. This *Weekly Letter* discusses some of the characteristics of U.S. unemployment that are important for the appropriate design of labor market policies and for the design of monetary policies aimed at controlling inflation.

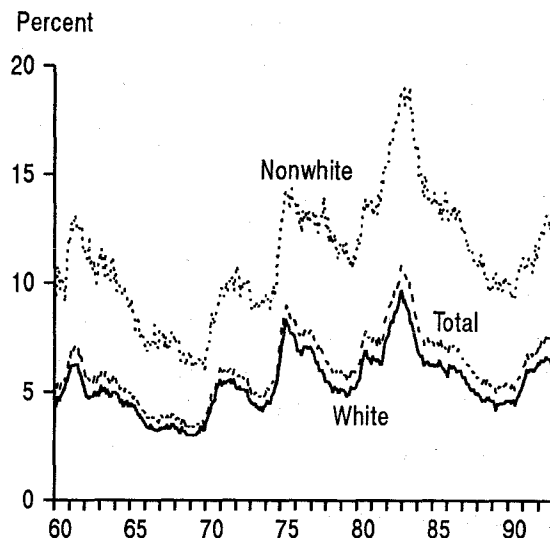
### The composition of unemployment

Measurement of the unemployment rate is based on a monthly survey of 60,000 households conducted by the Bureau of Labor Statistics. The overall unemployment rate equals the number of individuals in a given month who are looking for work as a fraction of the total number of individuals in the labor force. Individuals who are not actively looking for work are not counted as unemployed or as part of the labor force; individuals working part-time, but who might like to work full-time, are counted as employed.

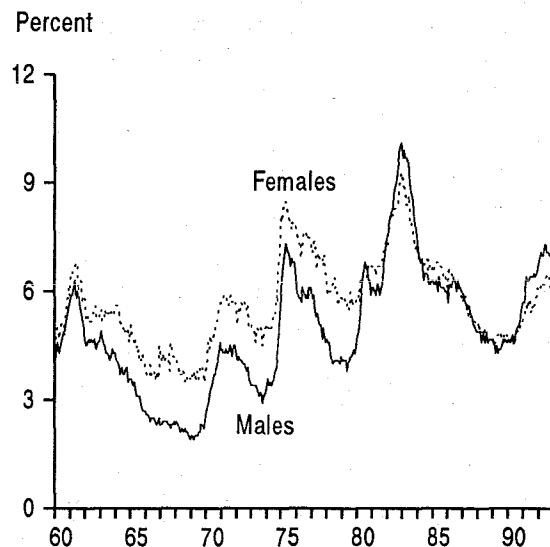
Individuals differ in many ways, and different groups experience very different levels of unemployment. By providing an aggregate measure, the overall unemployment rate does not answer questions about who the unemployed are: Are ethnic minorities more likely to be unemployed than white members of the labor force? Are women more likely to be unemployed than men?

To address these questions, Figures 1 and 2 give breakdowns of unemployment rates by race and gender. Figure 1 shows the total unemployment rate, together with the unemployment rates for whites and nonwhites. Data are monthly and cover the period from January 1960 to June 1995. The important role of business cycles in producing common patterns in all three rates is evident—a rising tide does raise all boats when it comes to unemployment—but the nonwhite rate of unemployment is roughly twice that for whites. This 2:1 ratio holds as a rough approximation over the

**Figure 1**  
White and Nonwhite (16 yrs. +)  
Unemployment Rates



**Figure 2**  
Male and Female (20 yrs. +)  
Unemployment Rates



# FRBSF

entire 35-year period shown. The vast changes in social and legal structures in the U.S. that have affected the economic opportunities of non-whites have failed to make a dent in this 2:1 relationship.

Figure 2 shows the unemployment rates for males and females over 20 years old. In contrast to the data on race differences in Figure 1, gender differences in unemployment rates have changed significantly over the past 35 years. During the 1960s and 1970s, the female unemployment rate averaged over 30 percent higher than the male rate. But labor market trends during the 1980s and 1990s have seen this gap narrow and even reverse. Unfortunately, the convergence of male and female unemployment rates did not occur as a result of the female rate falling to the lower levels previously experienced by males. Instead, as Figure 2 shows, the male rate rose, both absolutely and relative to the female rate, during the 1980 recession, and has remained roughly equal to the female rate ever since. In fact, during the first half of the 1990s, the unemployment rate for females over 20 years of age has averaged less than that for the corresponding group of males (5.5 percent versus 5.9 percent).

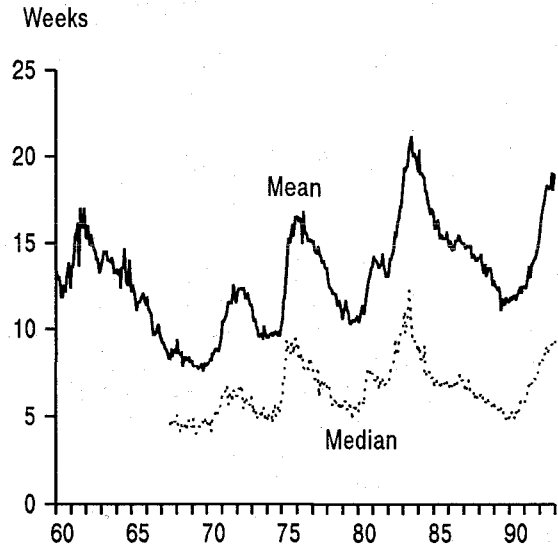
## The duration of unemployment

Unemployment rates provide one measure of labor market conditions, and another is the *duration* of unemployment, that is, how long an individual remains unemployed. The average (mean) duration of unemployment during the first six months of 1995 was 16.9 weeks.

Duration is a useful measure of labor market conditions. Because the overall unemployment rate represents an average of the number of individuals who experience some unemployment, weighted by the length of time they are unemployed, the same overall unemployment rate could occur if many people experience short spells of unemployment or if a much smaller number experience very long spells of unemployment. Job training and placement policies might have little impact on unemployment if unemployment spells are already quite short, while such programs might have a major impact if unemployment arises predominately from long spells of joblessness.

The solid line in Figure 3 shows mean duration since 1960. Duration clearly fluctuates with the business cycle: During recessions, total unemployment rises and the average length of a spell of unemployment increases, and in expansions,

Figure 3  
Unemployment Duration



the opposite occurs. Since 1969, average duration has trended upwards. While unemployment for the first six months of 1995 averaged 5.6 percent, the same as the average rate for 1972, mean duration in 1995 has averaged almost 17 weeks while it was only 12 weeks in 1972. In 1972, almost half (46 percent) of the unemployed had been without jobs for under five weeks; in 1994, this figure was only about a third (34 percent). In contrast, the fraction of people who had been unemployed for more than 27 weeks was 16 percent in 1972 and 20 percent in 1994. Thus, the same overall unemployment rate today corresponds to more long-term unemployment than it did earlier.

The dotted line in Figure 3 shows *median* duration since 1967, which, many have argued, is a more appropriate focus than *average* duration of unemployment. By definition, half of all unemployment spells will be shorter than the median duration and half will be longer. During the first half of 1995, the median duration was 8.1 weeks; in other words, half of all completed spells of unemployment were less than 8.1 weeks in length.

If a small fraction of the unemployed experience very long periods of unemployment while most unemployed are unemployed for only short periods, the mean duration will exceed the median duration. Median duration is, in fact, significantly less than mean duration in the U.S. In 1994, for example, mean duration was almost nineteen weeks while the median duration was only nine weeks and one third of all spells of unemployment lasted less than five weeks. Thus, U.S. unemployment tends to consist of a large number of relatively short spells of unemploy-

ment combined with a smaller number of very long spells of unemployment. However, a spell of unemployment may not end because the individual has found a job. Analyzing data from 1974, Clark and Summers (1979) concluded that almost half of all spells of unemployment ended because the unemployed worker withdrew from the labor force.

Comparing Figures 1 and 3 reveals some important developments in U.S. labor markets in the 1990s. The overall unemployment rate generally has declined during the last three years. Earlier experience would have suggested that both the mean and median duration of unemployment would have followed a similar path. But Figure 3 shows that after rising sharply during the 1990 recession, the duration measures remained high after 1992 even though the overall unemployment rate was falling. This suggests the growing importance of long-term unemployment in the U.S.

#### **The natural rate**

Labor market conditions are one factor considered by the Fed in deciding on the appropriate stance of monetary policy. While popular discussions tend to focus on the overall unemployment rate, it is the relationship between the actual rate and the economy's so-called natural rate that most economists believe is critical for judging short-term changes in inflationary pressures. The natural rate is the long-term average unemployment rate, and it depends on the microeconomic structure of the labor market, the supply of workers and their skills, and the economy's production technology. One recent estimate places the U.S. natural rate at about 6¼ percent (Weiner 1993).

The natural rate plays an important role in the conduct of monetary policy, since sustained periods with unemployment below the natural rate are typically associated with increases in the rate of inflation. Thus, comparisons between the actual overall unemployment rate and the estimated natural rate can provide an indication of the likelihood of inflationary pressures in the economy. As unemployment falls below the natural rate, labor markets tighten, and upward pressures on wages and prices build.

The inflationary effects of economic expansions will depend, in part, on the responsiveness of

wages to tightening labor markets. And the degree of tightness in labor markets associated with a given overall unemployment rate may vary over time. For example, if the long-term unemployed exert less downward pressure on wages and prices, perhaps due to more marginal attachment to the labor force or to concentration in low-wage or minimum-wage occupations, changes in the distribution of unemployment between short-term and long-term unemployment can affect inflationary pressures. If short-term unemployment falls while long-term unemployment rises, there might be increased pressures on wages even though the overall unemployment rate may have remained unchanged. Thus, changes in such factors as the distribution of unemployment between long-term and short-term spells can provide signals about potential shifts in the natural rate that can usefully supplement the information contained in the actual rate of unemployment.

#### **Conclusions**

Even though overall unemployment in the U.S. is now at levels similar to those of the early 1970s, just prior to the first oil price shock, the composition of unemployment has changed. Unemployment among males is much higher, for example. And the duration of unemployment, whether measured as the mean or the median, has risen dramatically. Long-term unemployment appears to be a more serious problem than it was in the early 1970s, even though average unemployment is roughly the same. One aspect of U.S. unemployment that has not changed is the ratio of nonwhite to white unemployment; nonwhites continue to have rates of unemployment that are roughly twice the level experienced by whites.

**Carl E. Walsh**  
UC Santa Cruz  
Visiting Scholar, FRBSF

#### **References**

- Clark, K.B., and L.H. Summers. 1979. "Labor Market Dynamics and Unemployment: A Reconsideration." *Brookings Papers on Economic Activity* 1, pp. 13-60.
- Weiner, S. 1993. "New Estimates of the Natural Rate of Unemployment." FRB Kansas City *Economic Review* 4, pp. 53-69.

Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System. Editorial comments may be addressed to the editor or to the author. Free copies of Federal Reserve publications can be obtained from the Public Information Department, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246, Fax (415) 974-3341. *Weekly Letter* texts and other FRBSF publications and data are available on FedWest OnLine, a public bulletin board service reached by setting your modem to dial (415) 896-0272.

# Research Department

## Federal Reserve

### Bank of

### San Francisco

P.O. Box 7702  
San Francisco, CA 94120

Printed on recycled paper  
with soybean inks.



#### Index to Recent Issues of *FRBSF Weekly Letter*

DATE	NUMBER	TITLE	AUTHOR
2/10	95-06	Central Bank Credibility and Disinflation in New Zealand	Hutchison
2/17	95-07	Western Update	Mattey/Dean
2/24	95-08	Reduced Deposit Insurance Risk	Levonian/Furlong
3/3	95-09	Rules vs. Discretion in New Zealand Monetary Policy	Spiegel
3/10	95-10	Mexico and the Peso	Moreno
3/17	95-11	Regional Effects of the Peso Devaluation	Mattey
3/24	95-12	1995 District Agricultural Outlook	Dean
3/31	95-13	Has the Fed Gotten Tougher on Inflation?	Judd/Trehan
4/7	95-14	Responses to Capital Inflows in Malaysia and Thailand	Glick/Moreno
4/14	95-15	Financial Liberalization and Economic Development	Huh
4/21	95-16	Central Bank Independence and Inflation	Parry
4/28	95-17	Western Banks and Derivatives	Laderman
5/5	95-18	Monetary Policy in a Changing Financial Environment	Glick/Trehan
5/12	95-19	Inflation Goals and Credibility	Judd
5/19	95-20	The Economics of Merging Commercial and Investment Banking	Kwan
5/26	95-21	Financial Fragility and the Lender of Last Resort	Schaan/Cogley
6/9	95-22	Understanding Trends in Foreign Exchange Rates	Kasa
6/23	95-23	Federal Reserve Policy and the Predictability of Interest Rates	Rudebusch
7/7	95-24	New Measures of Output and Inflation	Motley
7/28	95-25	Rebound in U.S. Banks' Foreign Lending	Zimmerman
8/4	95-26	Is State and Local Competition for Firms Harmful?	Mattey/Spiegel
8/18	95-27	Productivity and Labor Costs in Newly Industrializing Countries	Golub
9/1	95-28	Using Consumption to Track Movements in Trend GDP	Cogley/Schaan

The *FRBSF Weekly Letter* appears on an abbreviated schedule in June, July, August, and December.