

Measurement of Unemployment

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Abstract

Measures of unemployment tally people without a job who are looking for one. For measurement purposes, the critical question is what constitutes “looking.” This article summarizes how unemployment is measured in the United States and Europe, and describes recent research investigating the permeability of the dividing line between the unemployed and “marginally attached” subgroups of those out of the labor market. A continuum between unemployed and entirely inactive individuals indicates that measures beyond unemployment may be useful in judging the state of the labor market.

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Measures of unemployment attempt to count individuals who do not have a job but are looking for one. While the concept is reasonably straightforward, various measurement approaches are used to distinguish persons who are out of work and seeking employment from those who are out of work and not seeking, generally based on the specific methods these individuals are using to search for employment, how intensively they are searching, and how long it has been since they “actively” searched.

I. Official measure in the United States

In the United States, unemployment is gauged by comparing the number of unemployed individuals with the size of the labor force, as determined by a monthly survey of households. The civilian labor force is defined as individuals ages 16 and older who are either employed or unemployed, but not on active duty in the armed forces. (See U.S. Bureau of Labor Statistics, 2006, and Jacobs, 2005.)

Individuals are considered unemployed if they lack a job, are available to work, and have actively sought employment in the four weeks preceding the survey, or if they are awaiting call-back to an existing job (even if they did not actively seek employment). Active job search includes contacting employers or employment agencies, sending out résumés, or placing or answering advertisements; simply reading want ads is not considered active job search. An individual is considered to be employed if he or she worked at least one hour as a paid employee during the reference week, worked in her own business or farm, worked without pay for 15 hours or more in a family business, or had a job but was temporarily away from it because of illness, vacation, labor management disputes, parental leave, job training, or other personal or family-related reasons.

Anyone in the civilian noninstitutional population (ages 16 and older and neither in the military nor in an institution such as a prison or mental hospital) who is not employed and not unemployed is considered to be out of the labor force. The U.S. Bureau of Labor

Statistics (BLS) collects information on those who are out of the labor force, to assess the degree to which they may be “marginally attached” to the labor force, by asking about their interest in and availability for work.

Based on these questions, the BLS defines a set of “alternative measures of labor underutilization” that either subtract from the official unemployment rate (for example, by counting only the long-term unemployed) or add to it. The nature of the questions and the alternative measures were revised as of January 1994. The figure plots two of these “alternative measures” and a third concept, along with the official unemployment rate, over the period from 1994 to 2006. The line marked “discouraged” adds to the official unemployed all discouraged workers, defined as those who have given a job-market-related reason for not currently looking for a job, including people who think that no work is available, who could not find work, who lack schooling or training, who say potential employers think they are too young or old, or who believe they have been subject to other types of discrimination. The next measure adds all other marginally attached workers, defined as persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the preceding 12 months.

Beyond what the BLS defines as “marginally attached” is a group of individuals who have not looked for work in the last 12 months but who answer “yes” to the question “do you currently want a job?” This line is labeled “want a job” in the figure. The alternative measures add from a few tenths of a percentage point (discouraged workers), to a percentage point (marginally attached), to several percentage points (want a job) to the official unemployment rate. While too small to be seen clearly in the figure, the number of individuals in these marginal categories varied cyclically over the 1994–2005 period in a manner similar to the number of unemployed.

II. Unemployment measures elsewhere in the industrialized world

In most of the industrialized world, the concept of unemployment is the same as in the United States, and the definition for measurement purposes is quite similar. The dimensions along which measures differ include the type of job-search activities that distinguish the unemployed from the marginally attached, the definition of “currently available” for work, and the treatment of individuals on layoff or waiting to start a new job. In addition, age cutoffs may vary across countries. (For more detailed discussion of inter-country definitional differences, see Sorrentino, 2000.)

The measurement definition chosen by the Statistical Office of the European Communities (Eurostat) in September 2000 is used to calculate “standardized” unemployment rates for member nations. Eurostat conducts the European Union Labor Force Survey (EU LFS) on a quarterly basis and also releases “harmonized” monthly estimates based on data from member states. The EU LFS divides the population of working age (defined as ages 15 and older) into three groups: employed, unemployed, and inactive. The economically active population (like the labor force in the United States) comprises employed and unemployed persons.

According to Eurostat, the unemployed are those ages 15 to 74 (or 16 to 74 in a few nations), who were without work during the reference week, were available to start work within two weeks, and had either actively sought work in the past four weeks or had already found a job to start within the next three months. The specific steps that qualify as actively seeking work include being in contact with a public employment office or a private agency to find work, applying to employers directly, asking among friends, relatives, unions, etc., to find work, placing or answering job advertisements, studying job advertisements, taking a recruitment test or examination or being interviewed, or undertaking various activities to set up a business.

Thus, the EU includes those who only study job advertisements as unemployed (if they pass the other screens)—this is true in Canada as well—while the United States does not consider reading ads as active job search. In addition, persons waiting to start a new job are considered unemployed in Europe, but in the United States they are not considered unemployed unless they have actively searched for work within the previous four weeks. Persons on temporary layoff are considered unemployed in the United States even if they do not seek work, but in Europe they may be counted as employed, unemployed, or inactive, depending on search activity and the strength of their attachment to their job (based on pay and/or a definite recall date within three months).

III. The line between being unemployed and out of the labor force

Because the distinction is necessarily arbitrary for measurement purposes, a research literature has investigated the dividing line between the unemployed and those out of the labor force. One strand of this literature focuses on transition probabilities among labor market states, investigating the degree to which those out of the labor force (or a marginally attached subset of them) are as likely to move into employment as those labeled unemployed. The issue is that measured unemployment might miss some signals of labor market tightness or slack if those out of the labor force behave similarly to the unemployed. Clark and Summers (1979) reported that “many of those classified as not in the labor force are functionally indistinguishable from the unemployed” (p. 31). Flinn and Heckman (1983), by contrast, examined young workers’ transition probabilities into employment and rejected the hypothesis that the distinction between unemployment and out of the labor force was behaviorally meaningless.

Several recent papers—including Jones and Riddell (1999, 2006) focusing on Canada; Garrido and Toharia (2004) for Spain; Brandolini, Cipollone, and Viviano (2006) for Italy; and Schweitzer (2003) for the UK—describe selected groups of individuals who are officially out of the labor force but might be considered similar to the unemployed, as

they are attached to the labor force in various ways. These authors test hypotheses regarding behavioral differences—most notably probabilities of transition to employment over various time horizons—between the unemployed and subgroups of those out of the labor force. For example, Jones and Riddell consider those who say they want a job; Brandolini et al. examine those who searched for employment between five and eight weeks before the survey; Garrido and Toharia examine “passive” job searchers; Schweitzer subdivides those available for or wanting a job according to their primary non-labor market activity. Jones and Riddell also subdivide the unemployed into several categories along similar dimensions, and Schweitzer distinguishes between the long-term and short-term unemployed; both papers examine rates of transition to employment of these unemployed subgroups as well.

These researchers find that most of the marginally attached categories lie between the unemployed and people who are not in the labor force and not marginally attached; that is, their rates of transition into employment are higher than the rates of the completely inactive, but still generally lower than those of the unemployed. Jones and Riddell and Schweitzer also find heterogeneity within the ranks of the unemployed and note that some marginally attached categories have higher transition rates into employment than the rates of selected subcategories of the unemployed.

IV. Measuring slack in the labor market

These measurement issues are of more than academic interest because unemployment is the most widely used indicator of the degree of tightness or slack in the labor market and, by extension, in the overall economy; as a consequence, it is used by policymakers as a key signal of potential inflationary pressures. The research discussed above points to a continuum of labor market attachment among the non-employed, from those classified as unemployed, through various marginally attached groups, to people who expressly do not want a job. Some of the research authors argue that unemployment should be defined and measured more inclusively than it is currently. More generally,

the arbitrariness of the dividing line between the states of being unemployed and out of the labor force, together with the heterogeneity of subgroups within the “inactive” population, implies that the relationship between the measured unemployment rate and “true” economic slack and hence inflation may vary, depending on the specific definitions used in measuring unemployment, potential labor market entrants, the age and gender composition of the population, and labor market institutions. This suggests that policymakers might gain useful information by looking at a range of measures—along with the official unemployment rate—in judging the state of the labor market.

To address the challenge of measuring the degree of actual tightness in the labor market as accurately as possible, researchers have developed and investigated a variety of alternative indicators of labor market slack. One set of alternative measures sidesteps the difficulty of choosing a dividing line between the unemployed and the inactive population by concentrating on the distinction between employment and non-employment. For example, the European Council revised its labor market targets in 2000, replacing the goal of reducing unemployment with the goal of increasing employment rates (employment-population ratios) (European Parliament, 2000). Similarly, Juhn, Murphy, and Topel (1991, 2002), and Murphy and Topel (1997) analyze non-employment and argue that “the unemployment rate has become progressively less informative about the state of the labor market” (1997, p. 295). Others consider the labor force participation rate an indicator of interest, along with the unemployment rate (for example, Anderson, Barrow, and Butcher, 2005; Bradbury, 2005). Complementary approaches consider a variety of direct measures of labor market tightness, either individually (for example, Shimer’s (2005) job-finding rate among the unemployed) or in combination (for example, a composite measure of U.S. labor market tightness compiled by Barnes and Olivei, forthcoming).

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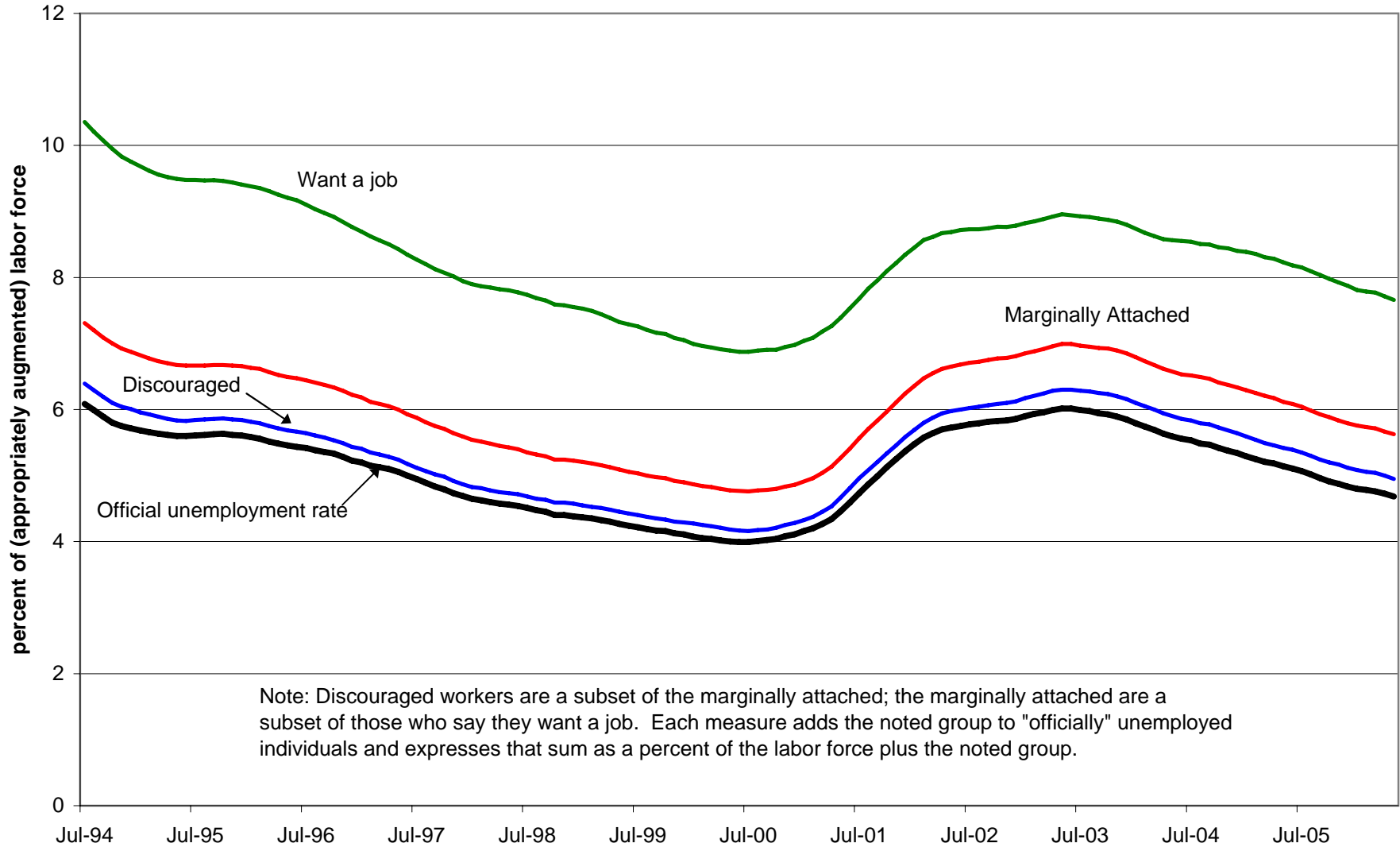
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U.S. Measures of Labor Underutilization
 Not seasonally adjusted, 12-month centered moving averages



Source: U.S. Bureau of Labor Statistics and author's calculations.