BLS introduces new range of alternative unemployment measures

Some of the original BLS unemployment indicators, U–1 through U–7, have been retained as part of the new range, U–1 through U–6; several new measures make use of data heretofore unavailable from the CPS

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In 1994, the Current Population Survey (CPS) introduced a totally revamped questionnaire and modernized data collection system. The principal aim of this redesign was to obtain more accurate and reliable information on the labor force activities of the population. For the most part, the basic concepts and definitions used in the measurement of employment and unemployment remained intact. Some labor market measures, however, were fundamentally altered, either because of definitional changes or because of improved measurement of existing concepts. At the same time, several new data series were created from additional information collected in the new survey.[1]

The redesign of the survey and associated changes in the measurement of certain labor market concepts required changes in the publication of some CPS data. In particular, publication of the range of unemployment measures based on varying definitions of unemployment and the labor force, better known as the alternative unemployment indicators, U–1 through U–7, was temporarily suspended, pending research into the effects of the new survey on these measures and into the possibility of modifying the range by using newly collected data.

This article provides a brief history of the old range of alternative measures, U–1 through U–7, and reviews the impact of the redesigned CPS on the pre-1994 series. Its principal purpose is to introduce a new set of measures. The revised set includes several of the former measures, but some important new ones are presented that take advantage of fresh data collected in the redesigned survey.

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Why a range of measures?

The measurement of unemployment was not markedly changed in the redesigned CPS.[2] Indeed, since the inception of the survey in 1940, only relatively minor changes have been made to the official definition of unemployment, despite numerous outside reviews and ongoing assessments by academicians, business and labor organizations, and various advocacy groups.[3] The official measure has withstood the test of time largely because of its objectivity. As measured via the CPS, the employment status of individuals is determined solely by their work-related and job-search activities during a specific reference week. In essence, persons who did any work at all during the reference week are counted as employed, while those who did no work, but who searched for a job (sometime in the 4 weeks prior to the survey) and were currently available to take one had it been offered, are classified as unemployed. Those who met neither test are "not in the labor force."

The inherent objectivity of the official measure also explains, in part, why it and other such statistics are occasionally subject to criticism. Without question, the consequences of unemployment are more serious for some workers than for others, and some users would like to have a more narrowly targeted measure. At the other end of the spectrum, there are those who feel that the official statistics *understate* the full dimensions of the unemployment problem.[4] This view holds that any measure of joblessness should reflect not only those officially classified as unemployed, but also all persons who want to work, even if they are not actually looking for

jobs on a current basis. Some go even further, arguing for the inclusion of *underemployed* individuals—those who are working, but who have had their hours cut back or who have had to settle for less work than they wanted (a 1-day job, for example) or for a job that failed to make use of all their skills.

More fundamentally, because unemployment statistics are used for different purposes, the official concept and measurement may not perfectly suit the needs or interests of all people. Most analysts monitor unemployment because of its role as a cyclical indicator, a measure to be used to gauge current economic conditions and provide some insight into future economic performance. In this role, the measurement of unemployment represents the degree to which available labor resources are not being utilized in the economy. But even though there is broad support for the official statistics when used in this capacity,[5] different interpretations of what is meant by "available labor resources" and "efficient utilization" remain, so some users find the need for a variety of measures.

As an example of these perceived limitations, some look upon unemployment data as measures of economic hardship—that is, as counts of the number of persons who are suffering because their most basic economic needs are not being met. It turns out that unemployment statistics in and of themselves are not particularly useful for this purpose, in large part because, ideally, the measurement of economic hardship requires information on income, and hardship is usually perceived as a family rather than an individual condition.[6] This complexity notwithstanding, some users tend to associate specific types of joblessness with given levels of hardship and therefore focus their attention on either selected worker groups, on the one hand, or a broader array of groups, on the other.

U–1 through U–7

The recognition of the diversity in the uses of unemployment data led Julius Shiskin, former Commissioner of the Bureau of Labor Statistics, to formulate and introduce the range of labor market measures U–1 through U–7 (similar to the Federal Reserve series of money supply measures) in 1976. Pointing out that "no single way of measuring unemployment can satisfy all analytical or ideological interests,"[7] Shiskin designed a range of unemployment indicators to accommodate many different needs for the data. Most of the measures presented were simply existing data series that captured different characteristics of unemployment, but two were constructed through the combination of several series. Shiskin made it quite clear that neither he nor the Bureau was embracing any of the value judgments inherent in the selection of alternative measures, but rather that the measures were being presented simply as a variety of unemployment indicators that recognized varying views on who should be classified as unemployed.

Shiskin's measures are presented in exhibit 1, using 1993 annual averages. The measures are ranked from the most restrictive (U–1), which excludes many persons who would be classified as unemployed in the official measure (U–5), to the broadest definition (U–7), which adds certain groups to the official estimate. Each measure is expressed as a percentage—that is, the proportion—of an associated labor force. In all of the measures except U–1 and U–2, each percentage is constructed as an unemployment rate. U–1 and U–2 are not unemployment rates per se, but represent specific types of joblessness as a share of the entire labor force.

The first four measures were predicated on the assumption that selected subsets of persons officially classified as unemployed experience more hardship (loss of income) than

Exhibit 1. Range of unemployment measures based on varying definitions of unemployment and the labor force (the Shiskin group)

[1993 annual averages]

Measure	Percent
U–1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force	2.4
U–2 Job losers, as a percent of the civilian labor force	3.7
U–3 Unemployed persons aged 25 and older, as a percent of the civilian labor force aged 25 and older (the unemployment rate for persons 25 years and older)	5.6
U–4 Unemployed persons seeking full-time jobs, as a percent of the full-time labor force (the unemployment rate for full-time workers)	6.5
U–5 Total unemployed persons, as a percent of the civilian labor force (the official unemployment rate)	6.8
U–6 Total persons seeking full-time jobs, plus one-half of persons seeking part-time jobs, plus one-half of persons employed part time for economic reasons, as a percent of the civilian labor force less one-half of the part-time labor force	9.3
U–7 Total persons seeking full-time jobs, plus one-half of persons seeking part-time jobs, plus one-half of persons employed part time for economic reasons, plus discouraged workers, as a percent of the civilian labor force plus discouraged workers less one-half of the part-time labor force	10.2

others and should therefore warrant more attention. The first measure, U–1, was based on the duration of unemployment: the number of persons unemployed 15 weeks or longer as a percent of the civilian labor force. Its inclusion rested on the premise that unemployment should be counted only if it lasted long enough to cause severe financial loss and that any income lost from shorter spells could be readily made up from savings, unemployment insurance, or other sources. The selection of the 15-week threshold was in keeping with the informal identification of 15 weeks and longer as "long-term unemployment."

Shiskin's second indicator, U–2, was the number of unemployed job losers, as a percent of the civilian labor force. He assumed that an involuntary (and likely unexpected) job loss entails a larger loss of income than does unemployment that occurs for other reasons, such as a job search initiated because a person has quit his or her current job to look for a better one or because the person recently has entered (or reentered) the job market.

The third measure, U–3, originally comprised unemployed heads of households and was expressed as a percentage of all heads of households in the labor force—that is, the unemployment rate for household heads. The selection of this measure was based on the belief that unemployment affecting the principal earner in a family was a serious matter and potentially a source of substantial hardship for the entire family, while a job loss among other workers might be associated with less dire consequences. Shortly after the initial formulation of the range of measures U–1 through U–7, however, publication of data on heads of households—mostly identified in the survey as the male in the household—was discontinued. In 1978, U–3 was redefined as the unemployment rate for persons aged 25 and older, eliminating the gender bias in the original measure and still restricting, for all practical purposes, the universe to those persons most likely to be supporting households.

Alternative indicator U–4 was the number of unemployed persons seeking full-time jobs, as a percent of the full-time labor force. This measure was included because it was felt that full-time workers were more likely to be primary earners than were those who worked part time. Hence, the consequences of unemployment for full-time workers who became unemployed could be viewed as more adverse than for part-timers.

The official unemployment rate was U–5. This measure was recognized as an objective assessment of the underutilization of labor resources, in that it included *all* persons 16 years and older who were not working, but were available for work and actively seeking employment, taken as a percent of the labor force (the employed plus the unemployed). Thus, unlike U–1 through U–4, U–5 excludes no one for any personal or economic reason.

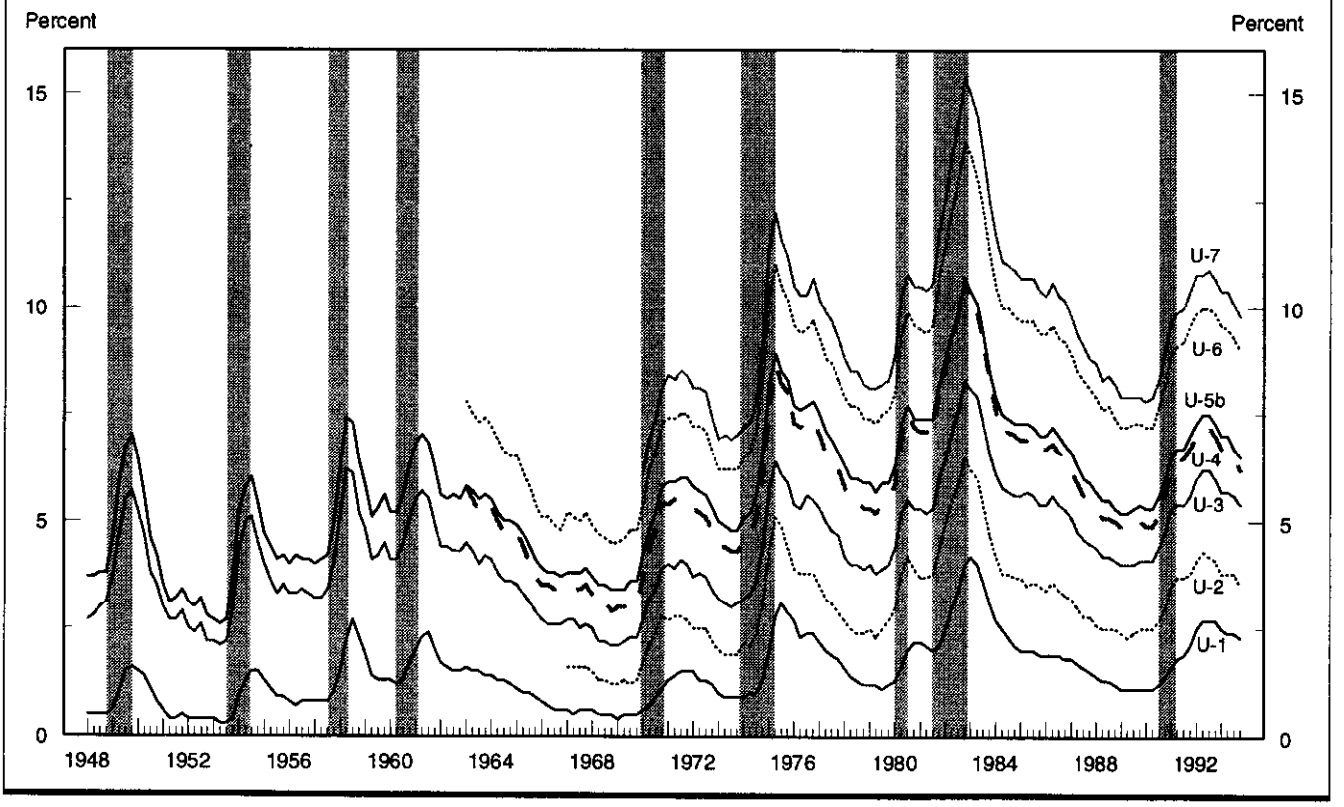
Beginning in 1983 and extending through 1993, U–5 was expanded into two measures, with the introduction of the resident Armed Forces (those stationed in the United States) into some of the official labor force estimates. The expansion came about as a result of a recommendation from the National Commission on Employment and Unemployment Statistics that the resident Armed Forces be included in national labor force statistics, "because similarities between civilian and military employment outweigh their differences."[8] This resulted in official rates U–5a, which in 1983 included some 1.7 million members of the Armed Forces as employed and thus in the labor force base (the denominator of the measure), and U–5b, the civilian worker rate. Typically, U–5a was one-tenth of a percentage point lower than U–5b. It soon became apparent that the press and public were unimpressed, and even confused, by the distinctions between the two measures; many people thought that members of the military were suddenly being counted as unemployed, for instance. Ultimately, publication of the measures incorporating the resident Armed Forces was dropped elsewhere, but U–5a continued to be presented in the monthly news release, *The Employment Situation*, along with the other measures, until the entire series was suspended at the end of 1993.

The last two measures in the list of alternative unemployment indicators excluded a portion of certain groups counted as unemployed in the preceding measures, but added a greater number of persons from the other employment status categories. Hence, these measures included a larger segment of the population among the unemployed than the official figure did, thereby producing higher "unemployment" rates.

Alternative measure U–6 added involuntary part-time workers to the unemployed and also introduced the notion of weighting workers. U–6 defined the unemployed as all persons seeking full-time jobs, plus one-half of all persons seeking part-time jobs, plus one-half of all persons at work part time involuntarily. Underlying this measure was the argument that those persons who had to settle for a part-time job or whose full-time schedules had been cut back to part time should be considered unemployed. (The proportion one-half was chosen because part-timers work, on average, about half as long per week as full-timers.) Also, persons who were looking for part-time work were given half weight among the unemployed, as those voluntarily working part time put in about half as many hours as full-time workers. In order to express this measure in a way that was conceptually similar to the unemployment rate, the denominator of U–6 was defined as the civilian labor force less one-half of the part-time labor force. This construction also put the measure on essentially a full-time equivalent basis.

The last of Shiskin's measures, U–7, built on U–6 by adding the number of discouraged workers to both the numera-

Chart 1. **Alternative unemployment indications, U–1 through U–7, seasonally adjusted quarterly averages, 1948–93**



tor and denominator.[9] Shiskin assumed that people classified as discouraged workers—those who wanted work, but who were not currently looking because they believed that their search would be futile[10]—very much resembled the unemployed and therefore should be counted as such. (Because these persons were not looking for work at the time of the survey, they were officially classified as not in the labor force.) Over the years, the possibility of counting this group as unemployed has been broached; indeed, an important minority of the last presidentially appointed commission to examine the concepts of employment and unemployment supported the notion of including a redefined measure of discouragement in the count of the unemployed.[11]

Note that, whereas U–6 and U–7 had a certain additivity with U–5, this was not the case for U–5 with respect to U–1 through U–4. The "lower four" measures were totally independent, not only of one another, but also of the official measure. This may have created some confusion, but it served to emphasize the variability in the uses of these measures.

U–1 through U–7 prior to the redesign

The Bureau began regular publication of data on the range of alternative unemployment measures U–1 through U–7 in *The Employment Situation* in January 1977. Since then, the most popular of the measures among both researchers and the media, other than the official unemployment rate (U–5), has been U–7, the highest numerically.[12]

The Bureau generally did not use the range U–1 through U–7 in its analyses, nor has there been much in the way of published research using it outside the Bureau. Aside from the fact that the proper focus is on the official statistics, it is important to note that there is little "value added" analytically in tracking the alternative measures over time. While it is true that each indicator provides a different point estimate of "unemployment," all seven measures have essentially moved in lockstep across the business cycle. (See chart 1.)

Many of the individual labor force measures reflected in the range U–1 through U–7 have, however, been routinely examined in *The Employment Situation* and have frequently been the subject of more indepth study. Also, several of the component series contained in the range have evidenced meaningful long-term trends—such as the upward trend in the incidence of involuntary part-time employment—but these developments typically have been analyzed quite effectively outside the U–1 through U–7 framework.

Several other countries have introduced their own ranges of alternative unemployment indicators. Canada, for example,

Exhibit 2. Range of alternative measures of unemployment and other forms of labor resource underutilization

[1994 annual averages]

Measure	Percent
U–1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force	2.2
U–2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force	2.9
U–3 Total unemployed persons, as a percent of the civilian labor force (the official unemployment rate)	6.1
U–4 Total unemployed persons plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	6.5
U–5 Total unemployed persons, plus discouraged workers, plus all other "marginally attached" workers, as a percent of the civilian labor force plus all "marginally attached" workers	7.4
U–6 Total unemployed persons, plus all "marginally attached" workers, plus all persons employed part time for economic reasons, as a percent of the civilian labor force plus all "marginally attached" workers	10.9

publishes a range that is roughly comparable to the United States', while Mexico has developed perhaps the broadest range of indicators, with several measures linking employment status with levels of compensation.[13] The Bureau has compiled data that have facilitated international comparisons of the range of indicators U–1 through U–7 across nine foreign countries.[14]

Impact of the redesign on the measures

The 1994 redesign had an impact on the data derived from the CPS, and hence the series used in the range U–1 through U–7, in two ways: first, a number of changes made to the questionnaire and overall survey methodology affected the measurement of employment, unemployment, and persons not in the labor force; and second, several definitional changes were introduced. (The appendix gives a more complete discussion of the effects of the redesign on the indicators.)

As regards measurement, the most significant change occurred in estimating the number of persons classified as employed part time for economic reasons. The figure was sharply lower under the redesigned survey, as respondents were explicitly asked about their desire and availability for full-time work. In the past, this information was inferred indirectly from other survey questions.

The most substantive definitional change concerned persons classified as discouraged workers. Considerable tightening of the requirements for discouraged worker status reduced the number of persons so classified by about half. Estimates of the duration of unemployment, the number of job losers, and the number of unemployed persons seeking full-time jobs also were affected to varying degrees by the questionnaire and other changes in the redesigned CPS.

The redesigned CPS provides new, as well as more detailed, information on the employment status of individuals, particularly persons classified as not in the labor force. First, more extensive questions on the reasons people do not enter the labor market permit a greater understanding of the factors that limit labor market participation for some individuals. In addition, all respondents in the survey classified as not in the labor force are now queried about their desire and availability for work; in the past, these questions were asked of just a quarter of the monthly sample. As a result, estimates of the number of discouraged workers are now made on a monthly, rather than quarterly, basis (although seasonally adjusted data are not yet available).

The new set: U–1 through U–6

After evaluating the impact of the redesigned CPS on the original range of alternative unemployment measures and assessing how newly collected data could be used to construct fresh measures that might be more relevant for today's data users, the Bureau has developed a modified range of alternative indicators. Annual averages for 1994 for the new range, entitled "alternative measures of unemployment and other forms of labor resource underutilization," are presented in exhibit 2. The change in the title suggests a slightly different emphasis and interpretation of the measures. Rather than implying a range of unemployment definitions, these indicators focus on different types of joblessness or incorporate different measures of labor resource underutilization.

Several of Shiskin's original measures have been retained. U–1 and U–2 are conceptually and definitionally identical to the first two measures in the original range, although the aforementioned survey changes have led to small "breaks in series." Other things being equal, U–1, the percent of the labor force unemployed 15 weeks or longer, is slightly higher under the redesigned survey than in the past, while U–2, the percent of the labor force that is unemployed because persons lost their last jobs or were in temporary jobs that ended, is slightly lower. These concepts are still relevant today, and it seemed reasonable to retain

the measures, particularly because there have been recent shifts in the unemployment picture in terms of the duration of and reasons for unemployment.[15]

The official unemployment rate is now U–3. The original indicators U–3 and U–4 are no longer included in the new range of alternative measures, in part because one reflected a personal (U–3, persons 25 years and older) rather than an economic characteristic, and more importantly, because both brought in the notion of reduced labor force bases.[16]

The new indicators U–4 through U–6 are markedly different from their counterparts in the original range of alternative unemployment measures. U–4 is the number of unemployed persons plus persons classified as discouraged workers, taken as a percent of the labor force plus discouraged workers. In order to be classified as discouraged in the redesigned survey, persons must explicitly want and be available for work and have searched for work in the prior year, even though they are not currently looking for a job because they feel their search would be in vain. The inclusion of U-4 coincides with the views of those who support a definition of unemployment that incorporates labor market discouragement.

U–5 adds other "marginally attached" workers to U–4, with the denominator being the civilian labor force plus all "marginally attached" workers.[17] This measure, using data not available prior to 1994, adds to the unemployed *all* persons who want and are available for a job and have recently searched for work, regardless of their reason for not currently looking. Hence, it includes those who are not currently looking for work for reasons such as child-care or transportation problems. While these persons may not be as closely attached to the labor market as are discouraged workers, they do represent potential labor resources, in the sense that they have recent job search activity and are currently interested in reentering the job market under certain conditions.

The highest alternative indicator, U–6, represents the number of unemployed persons, plus all "marginally attached" workers, plus *all* persons working part time for economic reasons, as a percent of a labor force augmented to include "marginally attached" workers. This is the most comprehensive of the new range of alternative measures, effectively treating workers who are visibly underemployed and all persons who are "marginally attached" to the labor force equally with the unemployed. Hence, U–6 provides the largest conceptual break with the official measure of unemployment; it is expected to be useful to those who want a single measure to represent a general view of the degree to which existing and potential labor resources are not being utilized.

As described earlier, the highest two of Shiskin's measures were calculated on essentially a full-time equivalent basis, in which full-time workers and persons seeking full-time jobs were treated as whole persons and persons working part time for economic reasons and those seeking part-time jobs, as well as the part-time labor force, were given half weights. This weighting was discontinued in the new U–6, principally in the interest of simplicity. Persons using the original higher level measures were confused by the weighting and, indeed, often rejected those measures in favor of unweighted estimates. For certain purposes, however, weighting has benefits, and certain individuals may wish to continue using some form of the old U–6 and U–7 measures.[18]

THE BLS ALTERNATIVE UNEMPLOYMENT MEASURES have had some degree of popularity ever since their introduction, both in the United States and in other countries that use them (or variations thereof). As mentioned earlier, however, where there is interest, it has tended to be fairly narrow. That is, people who use the measures appear to limit their use to a contrast between the official measure of unemployment (in the current scheme, U–3) and the highest available measure (U–6). One does not hear much about any of the other alternative measures, either below the official unemployment rate or above it, until the top is reached. It is for this reason, in addition to the others mentioned earlier, that the new set of alternative measures is more circumscribed below the official unemployment rate. At the upper end, one additional measure is featured, and it comes about solely because of the introduction in 1994 of additional information on persons not in the labor force into monthly data collection in the CPS.

The Bureau of Labor Statistics believes that the range U–1 through U–6 represents a useful, though by no means fully comprehensive, set of alternative measures of unemployment and labor market underutilization. Users will want to examine this set and perhaps create some sets of their own. Indeed, the Bureau encourages such efforts. In the meantime, the new alternative measures will be published in *The Employment Situation* beginning early in 1996.[19] □

Footnotes

[1] For information on the redesigned CPS, see Sharon R. Cohany, Anne E. Polivka, and Jennifer M. Rothgeb, "Revisions in the Current Population Survey Effective January 1994," *Employment and Earnings*, February 1994, pp. 13–37.

[2] Definitionally, it was not changed at all, except for the elimination of a small group of persons, namely, those who volunteered the information that they were waiting to start a new job within 30 days, most of whom undoubtedly meet the jobseeking tests in any case. There were, however, changes in the wording of nearly all the questions—particularly as regards persons on layoff—that affected the underlying data in limited ways. See Cohany, Polivka, and Rothgeb, "Revisions in the Current Population Survey."

[3] For a summary of the development of employment and unemployment

statistics in the United States, and a review of those statistics, see John E. Bregger, "Establishment of a new Employment Statistics Review Commission," *Monthly Labor Review*, March 1977, pp. 14–20; and Steven E. Haugen and John E. Bregger, "Employment and unemployment," in Douglas Greenwald, ed., *McGraw-Hill Encyclopedia of Economics*, 1994, pp. 345–53.

[4] See, for example, "Understating Unemployment," *Washington Journalism Review*, November 1992, pp. 35–36.

[5] See *Measuring Employment and Unemployment* (President's Committee to Appraise Employment and Unemployment Statistics, 1962); and *Counting the Labor Force* (National Commission on Employment and Unemployment Statistics, Labor Day 1979).

[6] There is widespread agreement that persons with incomes below the official poverty threshold, who are generally defined as "poor," experience hardship. The hardship endured by those living in families is often gauged by looking at family income and relating it to the poverty threshold for a family of a given size, where the threshold has been adjusted for the assumption that family resources are shared. In the case of unrelated individuals, individual-level income figures and their associated poverty thresholds must be used. Estimates of the number of persons and families with poverty-level incomes are produced by the Census Bureau and published in their annual Series P–60 and P–70 reports. In addition, the Bureau of Labor Statistics estimates the number of poor persons with work experience. See, for example, *A Profile of the Working Poor, 1993*, Report 896 (Bureau of Labor Statistics, July 1995).

[7] Julius Shiskin, "Employment and unemployment: the doughnut or the hole?" *Monthly Labor Review*, February 1976, pp. 3–10; quote on p. 4.

[8] *Counting the Labor Force*, p. 49. The Bureau began to phase out publication of the labor force series that included the resident Armed Forces in June 1991, coincidently with the military buildup associated with the Persian Gulf conflict, because of limitations in the availability and reliability of the data.

[9] Note that data on discouragement were published only on a quarterly basis over the 1967–93 period. The series was therefore placed last in the sequence, in order to have only one quarterly measure; otherwise, in all likelihood, U–6 would have been unemployment plus discouragement, and U–7 would have introduced involuntary part-time workers.

[10] As will be discussed later, the definition of discouraged workers was changed in the redesigned CPS introduced in January 1994. For further information, see the appendix.

[11] *Counting the Labor Force*, p. 56.

[12] Some analysts modified U–7 by adding *all* involuntary part-time workers to the unemployed and discouraged worker *totals*, an approach that, in 1993, added roughly 4 million workers to the numerator of U–7 and raised the rate by about 2-1/2 percentage points.

[13] For a description of Canada's alternative measures of unemployment, see Mary Sue Devereaux, "Alternative measures of unemployment," *Perspectives on Labour and Income*, Winter 1992, pp. 35–43. For information on the range of labor underutilization rates for Mexico, see Susan Fleck and Constance Sorrentino, "Employment and unemployment in Mexico's labor force," *Monthly Labor Review*, November 1994, pp. 3–31.

[14] Constance Sorrentino, "International unemployment indicators, 1983–93," *Monthly Labor Review*, August 1995, pp. 31–50.

[15] The share of the unemployed who have been jobless for extended periods of time has remained intractably high in recent years, and there also have been shifts in the number and composition of job losers. For a discussion of these developments, see "Recent Job Losers Less Likely to Expect Recall," *Issues in Labor Statistics*, Summary 92–8, July 1992; and "Long-term Unemployment Remains High During Recovery," *Issues in Labor Statistics*, Summary 95–11, September 1995.

[16] The original indicators U–3 and U–4, the unemployment rates for persons aged 25 and older and for persons seeking full-time jobs, respectively, were dropped from the range of alternative indicators because they focused more on the personal characteristics of unemployed workers than on a specific type of unemployment or underemployment or on types of individuals. Moreover, a troubling, inconsistent feature of the original range was that the upward progression in the size of the numerator (the number of unemployed workers, variously defined) was accompanied in measures U–3 and U–4 by a *diminution* in the size of the denominator (the labor force). The new range, U–1 through U–6, is more consistent in this area, in that the same base (the civilian labor force) is used in measures U–1 through U–3, and the base is then augmented in U–4 through U–6 as the labor resource characteristics under consideration are broadened. It should be noted that, although the original U–3 and U–4 series are not included in the new range, they are regularly published in *The Employment Situation*.

[17] "Marginally attached" workers are persons who want a job, are explicitly available for work, and have looked for work sometime in the prior year, but are not currently looking. This subcategory of persons classified as not in the labor force includes discouraged workers (persons who have given a job-market-related reason for not currently looking for work), as well as those persons who have given other reasons for not looking.

[18] The Bureau can produce a version of the original U–6 on a weighted basis for interested users.

[19] As currently envisioned, alternative indicators U–1 through U–3 will be published on both an unadjusted and a seasonally adjusted basis, while indicators U–4 through U–6 will be available on an unadjusted basis only, until sufficient data have been collected to produce a reliable seasonally adjusted series for discouraged and other "marginally attached" workers.

APPENDIX: Impact of the CPS redesign on the original indicators, U–1 through U–7

A totally redesigned Current Population Survey (CPS) was implemented in January 1994, the first major modification to the survey since 1967. Although the alterations to labor force concepts were in general quite limited (the major exception being the substantial redefinition of discouraged workers), the introduction of a redesigned questionnaire and modernized survey methodology had a marked effect on many labor force measures. Altogether, these changes led to a number of incomparabilities in various series between 1994 and earlier years. The impact of the changes on the original range of alternative indicators, U–1 through U–7, varied significantly and is summarized in what follows.[1]

Effects on indicator U–1, the number of persons unemployed 15 weeks or longer, as a percent of the civilian labor force. Both the numerator and denominator of U–1 were affected by the redesign of the CPS. The duration of unemployment generally rose under the new survey methodology. This effect is likely related to provisions that allow more flexibility in reporting the duration of unemployment—respondents can now report duration in either weeks, months, or years, versus only weeks under the old questionnaire—and to the introduction of dependent interviewing in the measurement of unemployment duration in the redesigned survey.[2] The denominator in U–1, the civilian labor force, was also somewhat higher in the redesigned survey than under the old CPS, due to increases in overall levels of unemployment and employment. The net impact on U–1, other things remaining equal, is a slightly higher percentage of the labor force that falls under the category of long-term unemployed.

Effects on indicator U–2, the number of job losers, as a percent of the civilian labor force. The number of unemployed persons classified as job losers—including persons on layoff who expect recall,

as well as the newly identified category of persons whose temporary jobs have ended—was somewhat higher under the old survey questionnaire and methodology than with the redesigned survey. Research to date has not reached any definitive conclusions as to the cause of this decline, but it seems to be related to the combined effects of various changes in wording in the new questionnaire. The net result, which includes the slightly higher labor force level mentioned above, is a lower proportion of individuals falling under U–2 in the redesigned CPS than under the pre-1994 survey.

Effects on indicator U–3, the number of unemployed persons aged 25 and older, as a percent of the civilian labor force aged 25 and older (the unemployment rate for persons aged 25 and older). The number of unemployed adults was slightly lower under the old survey than with the redesigned CPS, but the adult labor force expanded by about the same proportion; as a result, the overall impact of the redesigned survey on the unemployment rate for persons aged 25 and older was minimal.

Effects on indicator U–4, the number of persons seeking full-time jobs, as a percent of the full-time labor force (the unemployment rate for full-time workers). The number of unemployed persons seeking full-time work was affected only slightly in the redesigned CPS, consistent with the small positive effect on overall unemployment. However, the full-time labor force was more significantly affected.

Prior to the redesign, employed persons reported as working full time (35 or more hours) during the reference week were automatically classified as full-time workers and were not asked questions about the number of hours they usually logged. In addition, all persons working part time for economic reasons were considered part of the full-time labor force. In the redesigned CPS, all workers are asked about their usual hours directly, prior to being asked questions on the number of hours they actually worked. Thus, usual hours, rather than actual hours, now form the basis for delineating full- or part-time status. This change, combined with numerous other changes in the questionnaire, is associated with a slight decrease in measured full-time employment in the redesigned survey (and thus in the full-time labor force), compared with the old survey. The small increase in unemployed persons seeking full-time jobs, taken in conjunction with the slightly lower full-time labor force, yields a jobless rate for full-time workers (U–4) that is slightly higher in the redesigned survey than under the old CPS.

Effects on indicator U–5, the number of unemployed persons, as a percent of the civilian labor force (the official unemployment rate). The numerator of U–5, the overall number of unemployed persons, as officially defined, showed a modest increase in the redesigned CPS. At the same time, the denominator, as indicated above, also rose only slightly. The net result is that, other things remaining equal, the official unemployment rate is only marginally higher—an estimated 0.2 percentage point—under the redesigned CPS than under the survey prior to 1994.[3]

Effects on indicator U–6, the number of persons seeking full-time jobs, plus one-half the number of persons seeking part-time jobs, plus one-half the number of persons employed part time for economic reasons, as a percent of the civilian labor force less one-half of the part-time labor force. Alternative indicator U–6 was markedly affected by changes in the measurement of persons working part time even though they would have preferred full-time employment. Such persons are defined as those who want and are available for full-time work, but who have had to settle for part-time employment because their hours were cut back or because they could not find full-time jobs (the main two reasons). Prior to the redesign, information on a person's desire and availability for full-time work was inferred from his or her responses to a question on reasons for working less than 35 hours a week. Under the redesigned survey, persons who usually work part time are asked explicitly about their desire and availability for full-time work. This change in methodology led to substantial reductions in the number of persons classified as working part time for economic reasons. (The group is about 20 percent smaller than in the past.) Principally for this reason, the calculated rate for U–6 would be somewhat higher under the old CPS than under the new survey.

Effects on indicator U–7, the number of persons seeking full-time jobs, plus one-half the number of persons seeking part-time jobs, plus one-half the number of persons employed part time for economic reasons, plus the number of discouraged workers, as a percent of the civilian labor force plus the number of discouraged workers less one-half the part-time labor force. The most marked definitional change in the redesigned CPS dealt with persons classified as discouraged workers. In the old survey, persons out of the labor force who indicated a desire for work and a job-market-related reason for not currently looking for work were classified as discouraged workers, provided that no reasons to the contrary were also offered. This definition had been criticized in the 1979 presidential commission review as being too subjective.[4] In the revised CPS, discouraged workers were redefined as persons who indicate *explicitly* in the survey that they want and are available for a job, *have looked for work in the past year*, and have given a job-market-related reason for not currently looking for work. Among such reasons are the belief that no work was available, the belief that searching for work would be unsuccessful, the belief that one lacks the requisite skills or education, and the belief that one would face discrimination at some point in the job search. The definitional change dramatically reduced the number of discouraged workers measured in the redesigned survey. (The group is about 50 percent smaller.) This, plus the aforementioned reduction in the number of persons working part time for economic reasons, led to a rate for U–7 that would be markedly higher in the old survey than under the new one.

Footnotes to the appendix

[1] While it is difficult to make precise comparisons, enough is now known about the impact of the redesigned CPS on the various labor force series used in the original range of unemployment indicators, that qualitative comparisons can be made with a high level of confidence. (See Anne E. Polivka and Stephen M. Miller, "The CPS After the Redesign: Refocusing the Economic Lens," in National Bureau of Economic Research, conference volume, forthcoming.

[2] Under dependent interviewing, the duration of unemployment is automatically updated by 4 or 5 weeks if a person who is in the survey in one month is found to be unemployed in the next.

[3] Polivka and Miller, "The CPS After the Redesign."

[4] *Counting the Labor Force* (National Commission on Employment and Unemployment Statistics, Labor Day 1979), pp. 44–49.