Technical Note

The estimates in this report were obtained from the Current Population Survey (CPS), a national monthly sample survey of approximately 60,000 households, which provides a wide range of information on the labor force, employment, and unemployment. Earnings data are collected from one-fourth of the CPS monthly sample. The survey is conducted for the Bureau of Labor Statistics by the U.S. Census Bureau, using a scientifically selected national sample, with coverage in all 50 States and the District of Columbia.

Over its history, numerous changes have been made in the CPS questionnaire, methodology, and estimation procedures, to improve the quality of the data the survey produces. The most recent change—which affects the data for 2000, 2001, and 2002 presented in this report—was the inclusion of population controls, based on data from the 2000 census in the estimation procedure. As a result, estimates for the years shown in this report may differ from those published earlier. For more information on recent changes, see "Revisions to the Current Population Survey Effective in January 2003" in the February 2003 issue of *Employment and Earnings*, available on the Internet at **http://www.bls.gov/cps/rvcps03.pdf**. For more detail about prior changes to the CPS, including sampling reliability and more complete definitions than those below, see the Explanatory Notes and Estimates of Error section of *Employment and Earnings*, published monthly by the Bureau of Labor Statistics or "The Current Population Survey: Design and Methodology," Technical Paper 63 Revised (Washington, U.S. Census Bureau and Bureau of Labor Statistics, March 2002), available on the Internet at **http://www.census.gov/prod/2002pubs/tp63rv.pdf**.

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Concepts and Definitions

Principal concepts and definitions used in this report are described below.

The *civilian labor force* comprises all persons classified as employed or unemployed.

The *employed* are all persons who during the survey week: (a) did any work at all as paid civilians; (b) worked in their own business or profession or on their own farm; (c) worked 15 hours or more as unpaid workers in a family business; or (d) were temporarily absent from their jobs due to illness, vacation, bad weather, etc.

Unemployed persons are those who had no employment during the survey week, were available for work at that time, and made specific efforts to find employment sometime in the prior 4 weeks. Persons laid off from their former jobs and awaiting recall need not be looking for work to be classified as unemployed.

The *civilian labor force participation rate* is the civilian labor force as a percent of the civilian noninstitutional population.

The *unemployment rate* represents the number unemployed as a percent of the civilian labor force.

Hispanic origin refers to all persons who identify themselves as Mexican, Puerto Rican (living on the mainland), Cuban, Central or South American, or other Hispanic origin or descent. Persons of Hispanic origin may be of any race.

A *family* is a group of two or more persons residing together who are related by birth, marriage, or adoption. Families are classified as either married-couple families, or as families maintained by women or men without spouses.

Usual weekly earnings. Data are collected on wages and salaries before taxes and other deductions and include any overtime pay, commissions, or tips usually received (at the principal job in the case of multiple jobholders). Self-employed workers are excluded, regardless of whether their businesses are incorporated. Prior to 1994, respondents were asked how much they usually earned per week. Since January 1994, respondents have been asked to identify the easiest way for them to report earnings (hourly, weekly, biweekly, twice monthly, monthly, annually, other) and how much they usually earn in the reported period. Earnings reported on a basis other than weekly are converted to a weekly equivalent. The term "usual" is as perceived by the respondent. If the respondent asks for a definition of usual, interviewers are instructed to define the term as more than half the weeks worked during the past 4 or 5 months.

Medians of weekly earnings. The median is the amount that divides a given earnings distribution into two equal groups, one having earnings above the median, and the other having earnings below the median. The BLS estimating procedure for determining the median of an earnings distribution places each reported or calculated weekly earnings value into a $50-wide interval that is centered around a multiple of $50. The value of the median is estimated through a linear interpolation of the interval in which the median lies. Over-the-year changes in the medians for specific groups may not

necessarily be consistent with the movements estimated for the overall group boundary. The most common reasons for this possible anomaly are: (1) There could be a change in the relative weights of the subgroups. For example, the medians of both 16- to 24-year-olds and those 25 years and over may rise, but if the lower earning 16-to-24 age group accounts for a greatly increased share of the total, the overall median could actually fall. (2) There could be a large change in the shape of the distribution of reported earnings. This could be caused by survey observations that are clustered at rounded values, for example, $250, $300, or $400. An estimate lying in a $50-wide centered interval containing such a cluster, or "spike," tends to change more slowly than one in other intervals. Medians, for example, measure the central tendency of a multipeaked distribution that shifts over time. As the distribution shifts, the median does not necessarily move at the same rate. Specifically, the median takes relatively more time to move through a frequently reported interval but once above the upper limit of such an interval, it can move relatively quickly to the next frequently reported earnings interval. BLS procedures for estimating medians mitigate such irregular movements of the measures; however, users should be cautious of these effects when evaluating short-term changes in the medians, as well as in ratios of the medians.

Constant dollars. The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant dollars. BLS has made numerous improvements to the Consumer Price Index (CPI) over the past quarter century. While these improvements make the present and future CPI more accurate, historical price index series are not adjusted to reflect the improvements. However, many researchers have expressed interest in having a historical series that measures price change consistently over the entire period. Accordingly, the CPI-U-RS presents an estimate of the CPI that incorporates most of the methodological improvements made since 1978 into the entire series. For further information, see "CPI research series using current methods, 1978-98" by Kenneth J. Stewart and Stephen B. Reed, *Monthly Labor Review*, June 1999, pp. 29-38.

Hours at work are the actual number of hours worked during the reference week. For example, persons who normally work 40 hours a week but were off during Columbus Day holiday would be reported as working 32 hours, even though they were paid for the holiday.

Usual hours, or usual full- or part-time status. Data on persons "at work" exclude persons who were temporarily absent from a job and therefore classified in the zero-hours-worked category, "with a job but not at work." These are persons who were absent from their jobs for the entire week for such reasons as bad weather, vacation, illness, or involvement in a labor dispute. In order to differentiate a person's normal schedule from his or her activity during the reference week, persons also are classified according to their usual full- or part-time status. In this context, *full-time*

workers are those who usually worked 35 hours or more (at all jobs combined). This group will include some individuals who worked less than 35 hours in the reference week for either economic or noneconomic reasons and those who are temporarily absent from work. Similarly, *part-time workers* are those who usually work less than 35 hours per week (at all jobs), regardless of the number of hours worked in the reference week. This may include some individuals who actually worked more than 34 hours in the reference week, as well as those who are temporarily absent from work.

Wage and salary workers. These are workers who receive wages, salaries, commissions, tips, payment in kind, or piece rates. The group includes employees in both the private and public sectors but, for purposes of the earnings series, excludes all self-employed persons, regardless of whether their businesses are incorporated.

Hourly paid workers. Workers who are paid an hourly wage are a subset of wage and salary workers, representing approximately three-fifths of all wage and salary workers. Workers paid by the hour are, therefore, included in the full- and part-time worker tables in this report, along with salaried workers and other workers not paid by the hour. (Data for workers paid at hourly rates are presented separately.)

Work experience. These data reflect the work activity during the calendar year and are obtained from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey. *Persons who worked* were those that answered "yes" to the following questions from the ASEC: "Did you work at a job or business at any time during (the year)?" or "Did you do any temporary, part-time, or seasonal work even for a few days during (the year)?" Since the reference period is a full year, the number of persons with some employment or unemployment greatly exceeds the average levels for any given month, which are based on a 1-week reference period, and the corresponding annual average of monthly estimates.

Reliability

Statistics based on the CPS are subject to both sampling and nonsampling error. When a sample, rather than an entire population, is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or sampling error, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence. Standard errors included in this report were rounded for presentation purposes, as were the earnings estimates. Consequently, a precise confidence interval cannot be constructed using these data.

CPS data also are affected by nonsampling error. Nonsampling error can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information, and errors made in the collection or processing of data.

For a full discussion of the reliability of data from the CPS and information on estimating standard errors, see the Explanatory Notes and Estimates of Error section of the Bureau of Labor Statistic's *Employment and Earnings*.