ATTACHMENT 2

OVERVIEW

Current Population Survey

Introduction

The Current Population Survey (CPS) is the source of the official government statistics on employment and unemployment. The CPS has been conducted monthly for over 50 years. Currently, we obtain interviews from about 56,000 households monthly, scientifically selected on the basis of area of residence to represent the nation as a whole, individual states, and other specified areas. Each household is interviewed once a month for four consecutive months one year, and again for the corresponding time period a year later. This technique enables us to obtain reliable month-to-month and year-to-year comparisons at a reasonable cost while minimizing the inconvenience to any one household.

Although the main purpose of the survey is to collect information on the employment situation, a very important secondary purpose is to collect information on demographic characteristics such as age, sex, race, marital status, educational attainment, family relationship, occupation, and industry. From time to time, additional questions are included on health, education, income, and previous work experience. The statistics resulting from these questions serve to update similar information collected once every 10 years through the decennial census, and are used by government policymakers and legislators as important indicators of our nation's economic situation and for planning and evaluating many government programs.

The CPS provides current estimates of the economic status and activities of the population of the United States. Because it is not possible to develop one or two overall figures (such as the number of unemployed) that would adequately describe the whole complex of labor market phenomena, the CPS is designed to provide a large amount of detailed and supplementary data. Such data are made available to meet a wide variety of needs on the part of users of labor market information.

Thus, the CPS is the only source of monthly estimates of total employment (both farm and nonfarm); nonfarm self-employed persons, domestics, and unpaid helpers in nonfarm family enterprises; wage and salaried employees; and, finally, estimates of total unemployment.

It provides the only available distribution of workers by the number of hours worked (as distinguished from aggregate or average hours for an industry), permitting separate analyses of part-time workers, workers on overtime, etc. The survey is also the only comprehensive current source of information on the occupation of workers and the industries in which they work. Information is available from the survey not only for persons currently in the labor force but also for those who are outside the labor force. The characteristics of such persons - whether married women with or without young children, disabled persons, students, older retired workers, etc., can be determined. Information on their current desire for work, their past work experience, and their intentions as to job seeking are also available.

For a more detailed discussion about the basic labor force data gathered on a monthly basis in the CPS survey, see "Explanatory Notes and Estimates of Error" in any recent issue of the *Employment and Earnings*, a Bureau of Labor Statistics periodical. This source is referred to on the next page.

CPS Sample Design

The current CPS sample is selected based on 2000 census information. The first stage of the 2000 sample design created 2,025 geographic areas called primary sampling units (PSUs) in the entire United States. These PSUs were grouped into strata within each state. Some of these PSUs formed strata by themselves and were in sample with certainty, which is referred to as self-representing. Of the remaining nonself-representing PSUs, one PSU was selected from each stratum with the probability of selection proportional to the population of the PSU. A total of 824 PSUs were selected for sampling. The second stage of the sample design selected housing units within these PSUs.

Approximately 72,000 housing units are assigned for interview each month, of which about 60,000 are occupied and thus eligible for interview. The remainder are units found to be destroyed, vacant, converted to nonresidential use, containing persons whose usual place of residence is elsewhere, or ineligible for other reasons. Of the 60,000 occupied housing units, approximately 7 percent are not interviewed in a given month due to temporary absence (vacation, etc.), the residents are not found at home after repeated attempts, inability of persons contacted to respond, unavailability for other reasons, and refusals to cooperate. The interviewed households contain approximately 108,000 persons 15 years old and over, approximately 27,000 children 0-14 years old, and about 450 Armed Forces members living with civilians either on or off base within these households. A more precise explanation regarding the CPS sample design is provided in "Explanatory Notes and Estimates of Error: Household Data - Sampling" in any issue of *Employment and Earnings.*

Relationship of Current Population Survey Files to Publications

Each month, a significant amount of information about the labor force is published by the Bureau of Labor Statistics in the *Employment and Earnings* and *Monthly Labor Review* reports.

As mentioned previously, the CPS also serves as a vehicle for supplemental inquiries on subjects other than employment, which are periodically added to the questionnaire. From the basic and supplemental data, the Bureau of the Census issues three series of publications under the general title Current Population Reports:

P-20 Population Characteristics
P-23 Special Studies
P-60 Consumer Income

All Current Population Reports, including the other series for population estimates and projections and special censuses, may be obtained by subscription from the U.S. Government Printing Office at 202-783-3238. Subscriptions are available as follows: Population Characteristics, Special Studies, and Consumer Income series (P-20, P-23, P-60) combined, $101 per year (sold as a package only); Population Estimates and Projections, (P-25), $27 per year. Single issues may be ordered separately; ordering information and prices are provided in the Bureau of the *Census Catalog and Guide*, the *Monthly Product Announcement* (MPA), and in *Census and You*. Selected reports also may be accessed on the INTERNET at http://www.census.gov/prod/www/subject.html#pop

Geographic Limitations

The CPS sample was selected so that specific reliability criteria were met nationally, for each of the 50 States and for the District of Columbia. Since 1985, these reliability criteria have been maintained through periodic additions and deletions in the State samples. Estimates formed for geographic areas identified on the microdata file which are smaller than states are not as reliable.

Weights

Under the estimating methods used in the CPS, all of the results for a given month become available simultaneously and are based on returns for the entire panel of respondents. The CPS estimation procedure involves weighting the data from each sample person. The base weight, which is the inverse of the probability of the person being in the sample, is a rough measure of the number of actual persons that the sample person represents. Almost all sample persons in the same state have the same base weight, but the weights across states are different. Selection probabilities may also differ for some sample areas due to field subsampling, which is done when areas selected for the sample contain many more households than expected. The base weights are then adjusted for noninterview, and the ratio estimation procedure is applied.

1. **Noninterview adjustment**. The weights for all interviewed households are adjusted to the extent needed to account for occupied sample households for which no information was obtained because of absence, impassable roads, refusals, or unavailability of the respondent for other reasons. This noninterview adjustment is made separately for clusters of similar sample areas that are usually, but not necessarily, contained within a state. Similarity of sample areas is based on Core-Based Statistical Area (CBSA) status and size. Within each cluster, there is a further breakdown by residence. Each CBSA cluster is split by "principal city" and "balance of the CBSA." The proportion of occupied sample households not interviewed fluctuates around 8 percent depending on weather, vacations, etc.

2. **Ratio estimates**. The distribution of the population selected for the sample may differ somewhat, by chance, from that of the population as a whole in such characteristics as age, race, sex, and state of residence. Because these characteristics are closely correlated with labor force participation and other principal measurements made from the sample, the survey estimates can be substantially improved when weighted appropriately by the known distribution of these population characteristics. This is accomplished through two stages of ratio adjustment as follows:

    a. *First-stage ratio estimate*. The purpose of the first-stage ratio adjustment is to reduce the contribution to variance that results from selecting a sample of PSUs rather than drawing sample households from every PSU in the nation. This adjustment is made to the CPS weights in two race cells: black and nonblack; it is applied only to PSUs that are nonself-representing and for those states that have a substantial number of black households. The procedure corrects for differences that existed in each state cell at the time of the 2000 census between 1) the race distribution of the population in sample PSUs and 2) the race distribution of all PSUs (both 1 and 2 exclude self-representing PSUs).

    b. *Second-stage ratio estimate*. This procedure substantially reduces the variability of estimates and corrects, to some extent, for CPS undercoverage. The CPS sample weights are adjusted to ensure that sample-based estimates of population match independent population controls. Three sets of controls are used:

        1) 51 state controls of the civilian noninstitutional population 16 years of age and older

        2) national civilian noninstitutional population controls for 14 hispanic and 5 nonhispanic age-sex categories

        3) national civilian noninstitutional population controls for 66 white, 42 black, and 10 "other" age-sex categories

The independent population controls are prepared by projecting forward the resident population as enumerated on April 1, 2000. The projections are derived by updating demographic census data with information from a variety of other data sources that account for births, deaths, and net migration. Estimated numbers of resident Armed Forces personnel and institutionalized persons reduce the resident population to the civilian noninstitutional population. Estimates of net census undercount, determined from the Post Enumeration Survey, are added to the population projections. Prior to January 2003, the projections were based on earlier censuses, and prior to January 1994, there was no correction for census undercount. A summary of the current procedures used to make population projections is given in “Revisions in the Current Population Survey Effective January 2003" in the January 2003 issue of Employment and Earnings..

Comparability of CPS From Microdata Files With Published Sources

Although total estimates of the population will equal published estimates, labor force estimates produced from a microdata file will not be directly comparable or identical with the published nonseasonally adjusted labor force data. The major reason for this is due to a final estimation procedure incorporated into the production of the published nonseasonally adjusted data. This procedure, known as a composite estimator, is a weighted average of two estimates for the current month for any particular item. The first estimate is the two-stage ratio estimate that includes all the estimation steps given above. The second estimate consists of the composite estimate for the preceding month to which has been added an estimate of the change from the preceding month, based on that part of the sample which is common to the two months (about 75 percent). This procedure is primarily used to increase the reliability of estimates of month-to-month change, although other reliability gains are also realized. As noted above, the composite estimation procedure does not affect estimates of the total population.

Another factor also inhibits microdata comparison with published labor force data. This is the seasonal adjustment that is applied to many published statistics. This adjustment is used to adjust for normal seasonal variations to help distinguish the underlying economic situation in month-to-month changes.

Shown below are data from January and July 1993 which demonstrate how estimates compiled using the final weights from the microdata file may differ from the published composited estimates, with and without seasonal adjustment. Note that the composite estimation procedure was not used for estimates published from January 1994 to May 1994. For a further description of both the composite estimator and seasonal adjustment, see "Explanatory Notes and Estimates of Error: Household Data - Estimating Methods (Composite Estimation Procedure)" and "Seasonal Adjustment" in any issue of Employment and Earnings.

Comparison of CPS Estimates from Microdata Files with Published Sources

	Civilian Noninstitutional Population	Civilian Labor Force	Employed	Unemployed	Not in Labor Force
January 1993 Data (000's)					
Final Weights	192,644	126,115	116,113	10,002	66,529
Composited (Not Seasonally Adjusted)	192,644	126,034	116,123	9,911	66,610
Composited (Seasonally Adjusted)	192,644	127,083	118,071	9,013	65,561
July 1993 Data (000's)					
Final Weights	193,633	130,399	121,450	8,949	63,234
Composited (Not Seasonally Adjusted)	193,633	130,324	121,323	9,002	63,309
Composited (Seasonally Adjusted)	193,633	128,070	119,301	8,769	65,563