

Questions and Answers on the Redesign of the Current Population Survey

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Beginning in 1994, the unemployment rate and all other labor market data from the Current Population Survey (CPS) will reflect the results of a major redesign. The redesign affects virtually every aspect of the survey, including the questionnaire, the methods of data collection, the processing system, and the sample design. Following are some questions and answers that describe the survey itself and then focus on the upcoming changes to the questionnaire.

What is the Current Population Survey?

A monthly survey of households, the Current Population Survey (CPS) is the primary source of information on the labor force characteristics of the population. The national unemployment rate is the best known statistic from the CPS, but that is only one piece of a vast amount of information available on the employed, unemployed, and persons not in the labor force, including the industry, occupation, hours of work, and earnings of employed persons; the reasons for and duration of unemployment; and the characteristics of those not in the labor force, including discouraged workers. Information on persons in and out of the labor force is available according to personal characteristics such as their age, sex, race, Hispanic ethnicity, marital status, presence of children, level of education, and veteran status. Labor force and demographic data are available for regions, States, and sub-State areas as well as for the Nation as a whole.

How is the CPS conducted?

The survey is conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics using a scientifically selected sample of some 60,000 households, which are representative of the civilian noninstitutional population of the United States. Households in the survey are interviewed for 4 consecutive months, leave the sample for the next 8 months, and then come back into the sample for 4 more consecutive months before leaving the sample for good. In the household's first and fifth months in the sample, interviews are conducted in person at the respondents' homes. In the remaining months, interviews are typically done over the telephone. Respondents in households without a telephone, as well as those with language or hearing difficulties, are interviewed in person each month.

The CPS is conducted in the week containing the 19th day of the month. Most questions relate to activity in the prior week, that is, the week including the 12th of the month, which is known as the reference week. The initial release of labor force information, in the form of

a news release issued by BLS, is typically on the first Friday of the following month.

What are the data from the CPS used for?

The unemployment rate is perhaps the most closely watched of all economic indicators, and it and other estimates from the CPS are used in gauging the performance of the labor market. CPS data are also used to study such topics as demographic shifts of workers, trends in labor force participation and occupational distribution, and earnings differentials among worker groups. CPS data are used by government officials, businesspeople, journalists, academic researchers, and others engaged in labor market analysis.

Why is the CPS being redesigned at this time?

The CPS is being redesigned primarily to improve the quality of its data products. This is being accomplished by revamping the questionnaire to better capture the dynamics of the labor market and by incorporating recent advances in data collection technology.

The current CPS questionnaire has changed little since the last major revision in 1967. Since that time, problems with the current questionnaire in measuring certain labor market concepts have been identified. Also, since the last revision, the U.S. society and economy have undergone major shifts, such as the growth of service jobs and decline of factory jobs; the more prominent role of women, especially mothers, in the work force; and a profusion of alternative work schedules. These changes have raised new issues about labor force behavior which were not being addressed with the old questionnaire. In addition, there have been major advances in survey research methods and data collection technology. Since the need for relevant, precise, and comprehensive data about the labor force continues to grow, the time was right to implement a state-of-the-art, fully computerized CPS.

The redesign of the CPS questionnaire was guided by the results of a number of research projects conducted by BLS and the Census Bureau beginning in 1986, as well as by recommendations made in 1979 by the National Commission on Employment and Unemployment Statistics, also known as the Levitan Commission. The revised questionnaire, which is being tested in a separate national sample survey extending from July 1992 through December 1993, will become the official questionnaire beginning with the collection of data for January 1994.

What are the major objectives of the questionnaire redesign?

The major objectives are: To obtain more accurate, comprehensive, and relevant information; to implement several definitional changes; and to institute a completely automated interview.

How is the questionnaire being changed to provide more accurate information?

For most people, the measurement of labor force status and characteristics is straightforward; some, however, are difficult to classify correctly. In redesigning the CPS questionnaire, three ways to reduce misclassifications, and therefore enhance survey accuracy, were identified: (1) sharpen the measurement of labor force concepts; (2) make the questions easier to understand and answer; and (3) implement a computerized survey. Each of these steps bears further explanation.

What are some of the changes designed to sharpen the measurement of labor force concepts?

A number of improvements relate to the collection of data on unemployment, including persons on layoff from a job, jobsearch methods, and duration of unemployment. A person on layoff is defined as someone who was separated from a job and expects to be recalled. Unlike the current questionnaire, which leaves it up to the interviewer to probe, the new version contains direct questions about the expectation of recall. These direct questions help to ensure the accurate measurement of the concept.

In the case of jobsearch methods, the response categories as they appear on the interviewer's computer screen were expanded, and were also rearranged to more clearly distinguish between active jobsearch methods, such as contacting employers or employment agencies (which qualify a person to be counted as unemployed) and passive methods, such as taking special training or merely reading want ads (which do not qualify). The additional response categories and the reformatted screen make it easier for interviewers to place the answers to this question in the proper category. Also in the revised questionnaire, jobless respondents are able to report their duration of unemployment in either weeks or months, whichever they prefer, instead of having to report this information in weeks, as is currently the case. This change yields a more accurate estimate, especially for the long-term unemployed.

Among the concepts related to employment, an improvement is being made in the way industry and occupation for all workers are identified, as well as in the identification of unpaid family workers. The questions regarding industry and occupation have been reordered and reworded to obtain more precise information on job characteristics. For instance, the new questionnaire is more explicit about the distinctions between the private and public sector and between wholesale and retail trade. (The measurement of industry and

occupation will also benefit from the use of dependent interviewing, discussed later.)

Unpaid family workers are persons who work without pay in a family business for at least 15 hours in the reference week. These workers are included in the CPS definition of employed, but this information is obtained in the current questionnaire only if it is volunteered, since there is no direct question on the presence of a business in the household. In the revised questionnaire, instead of relying on volunteered responses, every household is asked about the presence of a family business, and, for households where such a business exists, family members who are not otherwise employed are asked if they did any unpaid work in that business.

Another example of improving the measurement of an existing definition is the identification of the reference week, the week to which most of the labor force questions apply. These questions ask about activities "last week," but research has shown that respondents were unclear as to its meaning. To address this problem, respondents are provided with the actual dates of the reference week in the revised questionnaire.

How were the questions made easier to understand and answer?

Several techniques were used to make questions clearer and easier for respondents to understand. These included revising the question wording and order, splitting complex questions into two or more simpler ones, and embedding recall strategies into the questions.

A question in the current version which had been identified as especially difficult was, "Did you have a job or business from which you were temporarily absent or on layoff LAST WEEK?" This is a confusing question that addresses several different topics; to some respondents, it sounds as if they are being asked if they have a business. In the revised version, respondents are asked about absence from work and layoff in separate questions.

Another example of questions that were reworded for better comprehension is the series asking about the number of hours actually worked in the reference week. Research showed that, when asked for the number of hours worked, respondents sometimes provided their scheduled hours instead of the exact number of hours they worked, which is what is desired. The new version incorporates an implicit recall strategy. Everyone with a job is first asked for the number of hours they usually work, then about any time off or extra hours worked during the reference week, then finally for the total number of hours they actually worked during the week.

Also revamped is the series on earnings. Currently, all workers are asked to report the amount they usually earn per week, even though this is not the easiest way for many people to report their earnings. In the new series, respondents are free to report their earnings in the periodicity they prefer—for example, hourly, weekly, biweekly, or annual. Since weekly earnings are required for publication, earnings data provided by respondents in periodicities other than weekly are converted to a weekly earnings estimate during later processing of the data.

What new information will be available under the redesign?

Once the redesign is implemented, several types of labor force data will be available regularly for the first time. For instance, information will be available each month on multiple jobholding. This will allow BLS to address issues such as the relationship between dual jobholding and the business cycle, the prevalence of workers who combine two or more part-time jobs into a full-time workweek, and the number of full- and part-time jobs in the economy. These data will also facilitate comparisons of employment estimates between the CPS and the BLS survey of business establishments, which are discussed in more detail later. Also beginning in 1994, estimates on the number of hours usually worked per week will be available monthly for the first time.

To better reflect current social and economic reality, response categories for a number of questions have been expanded. For instance, questions on the reason for absence from work and the main reason for working part time will have a new response category of "child-care problems." (In the present version, such a response is included in a broader category, such as "too busy with housework, school, personal business, etc.," or "other.") With updated response categories, answers to the survey questions are more appropriately classified. This makes for a smoother interview and for more meaningful categories for data analysis.

Which definitions are changing?

The labor force definitions used in the CPS have undergone only minor modifications since the survey's inception in 1940. Beginning in 1994, small changes in several definitions will be made. The most important change is to the concept of discouraged workers, persons not looking for work because they believe their jobsearch would be in vain. This definition was criticized by the Levitan Commission for being somewhat arbitrary and subjective.

To address these concerns, the definition of discouraged workers is being modified to include two new requirements: (1) jobsearch within the past year (or since last worked if worked in the past year); and (2) availability to take a job. (Currently, availability is inferred from responses to other questions; the new questionnaire will contain a direct question about availability.) The discouraged will still have to report that they did not look for work for one of the following reasons: Believes no work available in line of work or area; couldn't find any work; lacks necessary schooling, training, skills, or experience; employers think too young or too old; or other personal handicap in finding a job. Also, the questions determining discouraged worker status will be asked of the entire sample each month, instead of one-quarter of the sample as is currently done, allowing monthly, rather than quarterly, estimates.

Other minor changes were made to fine-tune the definitions of part time for economic reasons; unemployment; and entrants and reentrants (categories of unemployment). To be classified as part time for economic reasons (that is, working less than 35 hours in the reference

week because of poor business conditions or because of an inability to find full-time work), persons who usually work part time must meet two new criteria: They must be reported as wanting a full-time job and as having been available to take one during the reference week. (Persons who usually work full time but worked part time for an economic reason during the reference week are assumed to meet these criteria.)

To be unemployed under current classifications, persons must have actively looked for work in the last 4 weeks, unless they belong in one of the following two categories: expecting recall from layoff, or waiting to start a job within 30 days. With the redesign, persons who report that they are waiting to start a new job (a very small group numerically) must also meet the jobsearch requirement in order to be counted as unemployed. Otherwise, they will be classified as not in the labor force.

Unemployed workers are classified by their status prior to becoming unemployed. Job losers (including those on layoff) and job leavers were working just before their unemployment. Unemployed persons not working in the period immediately before they began their jobsearch are classified as either new entrants or reentrants. New entrants are currently defined as jobseekers who have never worked at a full-time job lasting 2 weeks or longer; reentrants are defined as jobseekers who have held a full-time job for at least 2 weeks but were not working just before they started to look for work. These definitions are being modified, in that the criterion of having a full-time job lasting 2 or more weeks is being eliminated. Beginning in 1994, new entrants will be defined as jobseekers who have never worked; reentrants will be defined as jobseekers who have worked before (but not immediately prior to their jobsearch).

How is the CPS questionnaire being automated?

About 1,500 highly trained and experienced Census Bureau interviewers will continue to collect the CPS, but the way in which they collect the data will change radically. Instead of a paper questionnaire, field interviewers will be equipped with laptop computers on which the questionnaire has been programmed. The interviewer will read a survey question displayed on the computer screen and enter the respondent's answer on the computer keyboard; the next appropriate question will then automatically appear on the screen. This type of data collection is known as computer-assisted personal interviewing (CAPI). Interviewers will use CAPI in both face-to-face and telephone interviews. After completing interviewing each day, the interviewer transmits the data via modem to the computer at the Census Bureau headquarters in Suitland, Maryland.

In addition, continuing the current practice, some interviews (about 10 percent) will be conducted from two telephone centers (located in Hagerstown, Maryland, and Tucson, Arizona) by interviewers who also use a computerized questionnaire. This is known as computer-assisted telephone interviewing (CATI). By minimizing the potentially negative effect of turnover among field interviewers, the centralized CATI system helps to ensure that the CPS is completed under tight deadlines.

What are some of the advantages of an automated process?

Automation has many advantages over the paper-and-pencil method. It allows for complicated skip patterns, standardized followup questions, and customized questions that are tailored to the individual's situation, without placing an undue burden on either the respondent or the interviewer. It also allows responses to be entered directly into an electronic data base.

Automation virtually eliminates errors resulting from the use of incorrect skip patterns and from such survey operations as the printing and shipping of questionnaires. With the computerized questionnaire, there will be automatic checks for internal consistency and for out-of-range responses, so that some errors can be caught and corrected during the interview. Automated collection will be used exclusively beginning in January 1994; there will be no operational paper version of the new questionnaire.

Another important feature of automation is that it permits dependent interviewing, that is, the retrieval and verification of selected information from a previous month's interview during the current interview. Dependent interviewing reduces respondent and interviewer burden by preventing unnecessary repetition of questions, and improves the overall accuracy of the data by building in consistency and reducing spurious change.

How will dependent interviewing be used?

Dependent interviewing is used only in connection with specific labor force characteristics, and not for determining basic labor force classification. Areas in the new questionnaire which will benefit from the use of dependent interviewing include the description of the occupation and industry in which people work and their retired or disabled status. If there is a change relative to the information previously supplied on these topics, the respondents are asked to provide the updated information; otherwise, they simply verify the information given previously.

A somewhat different form of dependent interviewing will be used to obtain information on persons' duration of unemployment. Such information will be obtained the first month individuals are unemployed and will, in succeeding months, be updated automatically as long as they remain unemployed. And, as will be seen in an answer to a later question, dependent interviewing will ease the burden for retired and disabled respondents.

What about longitudinal data?

The CPS is essentially a cross-sectional survey, that is, it provides snapshots of the labor force at particular points in time. But it has always had a longitudinal aspect: Given the rotation schedule of the survey, it is possible to track people over a 16-month period. However,

the amount of longitudinal data available from the CPS has been limited, in part by the current processing system. One benefit of the new system is that records will be easier to match from one month to the next, enhancing the longitudinal capability of the survey. Also, certain features of the new questionnaire, such as dependent interviewing and including direct questions instead of relying on volunteered responses, are expected to improve consistency and substantially reduce spurious changes from month to month. Thus, researchers will find the redesigned CPS an improved source of longitudinal data.

How will respondents benefit from all of these changes?

Survey respondents will experience an interview that is highly personalized, with a minimum of repetition from one month to the next. Questions will be easier to answer as a result of clearer wordings and embedded recall strategies. Retired and disabled respondents will find the interview particularly streamlined.

How is the questionnaire being made less burdensome for the retired and disabled?

The redesign will address a frequent complaint that the current CPS questionnaire is particularly burdensome for persons who are not working and who are reported to be retired or disabled. Such persons are currently asked the full series of labor force questions each month, even if it has no relevance to their situation. In the new questionnaire, if persons report that they are retired (and are at least 50 years old), they are skipped to a question inquiring whether they want a job. If they do not want to work, the interview ends, and they are classified as not in the labor force. (If they do want to work, they are asked questions about looking for work and continue through the interview.) If persons report that they are disabled, they are asked a followup question to determine if their disability prevents them from accepting any kind of work during the next 6 months. If the answer is "yes," the interview is concluded. In subsequent interviews, dependent interviewing will further ease their burden through a simple verification of their status.

How is the confidentiality of the data being maintained?

Survey responses are kept strictly confidential and are used only to produce aggregate statistics. The new system has several safeguards to ensure confidentiality. First, each laptop is set up to require a password to access respondent files. Second, data from each interview are stored in a compressed format, so that even in the event of a breach in password security, the data would not be readable. Once files are transmitted to the main computer, they are deleted from the laptops.

How was the new questionnaire developed?

Beginning in 1986, BLS and the Census Bureau conducted a number of research projects to develop and evaluate new question wordings and sequences. Based on the results of this research as well as the recommendations of the Levitan Commission, alternative versions of the questionnaire were developed and then were tested in two phases. During phase I, conducted from July 1990 to January 1991, two alternative questionnaires were tested against the current questionnaire. During phase II, conducted from July 1991 to October 1991, a nearly final version of the new questionnaire was tested against the current questionnaire. Both tests were conducted using Computer Assisted Telephone Interviewing (CATI) and a random digit dialing (RDD) sample of households with a telephone. Data were obtained for over 72,000 persons in phase I and over 32,000 persons in phase II. Evaluation of the content of the alternative questionnaires was based on an analysis of item nonresponse, response distributions, respondent debriefings, interviewer debriefings, and interview monitoring.

The results of both tests were used to develop the final questionnaire, which has been administered using CATI and CAPI to a separate national sample of 13,000 households per month, extending between July 1992 and December 1993. The results from this test, known as the "overlap survey," are being compared with data from the official survey (using the current questionnaire and procedures) to gauge differences in estimates derived from the two surveys. The overlap survey is also being used to test the CAPI system, the questionnaire's complex computer programming, and the completely revamped processing system. Initial measures of potential effects of the new questionnaire, data collection methods, and other changes will be available in the late fall of 1993. More complete findings from the overlap survey, based on an analysis of data for January 1993 through December 1993, will be presented in an article in the February 1994 issue of *Employment and Earnings*.

What effect will all of these changes have on the historical series?

The new questionnaire and mode of data collection will result in changes in levels or ratios for most estimates. The overlap sample will help explain differences in the series, but there will be no way to revise previously released estimates. BLS is, however, planning to develop bridge estimates at some time in the future that should assist persons using the data for analytical or research purposes.

Will the redesign have any impact on the estimates from the payroll survey?

No. BLS' other major employment survey is the Current Employment Statistics program, popularly known as the payroll (or establishment) survey. Through it, a sample of nonfarm business firms report on the number of persons (as well as their hours and earnings) on their payrolls. This survey, which provides a somewhat different,

yet complementary view of employment, is administered completely independently of the CPS. Thus, the redesign of the CPS will have no effect on the estimates derived from the payroll survey.

Some of the improvements being introduced into the CPS will facilitate comparisons between the surveys. For instance, in the revised CPS questionnaire, employed persons will be asked each month whether they had more than one job, something that previously was asked only periodically. Having a monthly count of multiple jobholders will help in analyzing differences in employment trends between the two surveys, since the CPS counts the number of persons working, while the payroll survey counts the jobs they hold and is thus affected by changes in the rate of multiple jobholding.

How will the redesign affect the measurement of unemployment and other labor force series?

By the late fall of 1993, the overlap survey should provide an indication of how the major labor force estimates might be affected by the changes. Even then, however, the findings must be viewed as tentative, since the overlap sample does not exactly duplicate official CPS conditions and procedures. Users should also note that the estimates produced under the redesign will reflect the effects of both the new questionnaire and computerization, and it will be very difficult (if not impossible) to separate these effects.

Additionally, there will be some unknown effects. For example, the majority of interviewers will be using the new questionnaire and laptop computer on an operational basis for the first time. Also, from December 1993 to January 1994, three-fourths of the sampled households will be switching from the old to the new questionnaire. Moreover, during the first few months following the January 1994 implementation, it is expected that the effects from the transition may increase the variability of the estimates.

How will the labor force estimates for States and areas be affected?

In general, the quality of the CPS estimates for regions, States and smaller areas will benefit—as will the national data—from the changes being implemented. It is important to note, however, that the overlap survey is based on a relatively small, nationally drawn sample, as opposed to the CPS's large, State-based sample. Therefore, the overlap sample will provide only a limited indication of how the redesign will affect labor force estimates for regions, States, and areas.

Will the redesign affect the release schedule of CPS data?

No. The Employment Situation news release will be issued according to the same schedule, typically on the first Friday of the month. *Employment and Earnings*, a monthly periodical with more detailed information from the CPS and other surveys, will continue to be published about 3 weeks after the initial release.

How will seasonal adjustment be handled?

BLS hopes to continue to seasonally adjust nearly all of the ongoing time series that are now adjusted. BLS is considering alternatives to the current method of seasonal adjustment (X-11 ARIMA) that may do a better job of handling differences in some time series that such major changes in a survey can cause. A decision on the method of adjustment to be used will be made later this year.

There will be no change in the schedule of revisions to seasonally adjusted data. These data will continue to be subject to revision for up to 5 years after they are initially published. Users should note that, because of the major changes in the data collection instrument and methodology, seasonally adjusted estimates for 1994 may be subject to relatively larger revisions and may display somewhat more volatility than usual even after they are revised.

How is the CPS sample being redesigned?

The CPS sample is redesigned following each decennial census. Using economic and demographic data from the census, approximately 700 sample areas are selected to represent each State and the District of Columbia. Starting in 1994, the sample will reflect the results of the 1990 census. Some of the areas will be new to the CPS sample, other

areas will be dropped, and many areas will be continuing in the sample. Within the continuing sample areas beginning in April 1994, new sample households will be selected using address lists and other materials from the 1990 census. The new areas will be introduced into the sample beginning in August 1994.

Are there any additional reviews of the CPS under way or being planned?

BLS and the Census Bureau are committed to maintaining and improving the high quality of information from the CPS. In the coming years, the agencies will be evaluating a variety of data from the redesigned CPS. Based on these findings, and other considerations such as advances in data collection technology and processing, recommendations for improvements will be tested and implemented. In this way, the CPS will continue to provide the best quality data possible.

Where can I go for more information?

For more detailed information on the CPS redesign, write to the Bureau of Labor Statistics, Division of Labor Force Statistics, Room 4675, 2 Massachusetts Avenue NE., Washington, DC 20212, or telephone (202) 606-6378.