

**BRIEFING MATERIALS**

**ON THE**

**REDESIGNED CURRENT POPULATION SURVEY**

by

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## REDESIGNING THE CURRENT POPULATION SURVEY

The Current Population Survey--the source of the nation's statistics on the labor force, total employment, unemployment, and persons not in the labor force--is undergoing a major redesign. A collaborative effort between the Bureau of Labor Statistics and the Bureau of the Census on this redesign began in the late 1980s and has focused principally on improving the measurement of employment and unemployment.

The Current Population Survey came into existence in 1940. It has been updated and revised in many ways since then, including changes to the questionnaire and expansions in the sample size (from about 8,000 to the present 60,000 households). The last significant changes to the questionnaire were in 1967. Since that time, there have been many societal changes, such as the continuing growth in service-sector employment; the more prominent role of women, particularly mothers, in the labor force; and shifts in the nature of employment, including more part-time work and less permanent attachment of employees to their employers. Also, in the past quarter century, there have been many advances in survey research techniques and in data collection procedures which facilitate the development of more precise measurement methods. Finally, a Presidential Commission in 1979 made recommendations concerning the way discouraged workers are measured (which were not implemented due to the lack of funding). All of these factors argued for major revisions to the questions and collection techniques used in the survey.

The changes to the questionnaire are more extensive than any that have occurred in the past and were facilitated by converting from paper and pencil to completely automated data collection (mostly via laptop computer). Concentrating on improved labor force classifications, questions have been tailored and made more precise for particular types of workers and labor market situations. Many of these changes would not have been feasible using pencil-and-paper data collection. Most importantly, extensive testing of both the old and new questionnaires suggests that respondents will better understand what we are asking and that we are more likely to accurately classify employment and unemployment activity.

The revised questionnaire will result in important new information being collected on a regular basis. We expect to obtain data on the number of employed persons who have two or more jobs each month. This will not only assist us in understanding differences between our two surveys (the Current Population Survey number of persons employed versus the number of nonfarm jobs measured in the business survey) but will also yield estimates of counts and changes over time in full-time and part-time jobs. Also, the new survey will provide better tracking of individuals over time and thus support analyses of job creation and movements in and out of employment and unemployment.

## EVALUATING THE REDESIGN

Beginning in July 1992 and extending through the end of 1993, a separate, parallel survey was conducted to help us determine the effects of the new questions and collection procedures. The attached tables provide a selected summary of labor force estimates from the Current Population Survey and the overlap or parallel survey. Comparisons of estimates between these two surveys

provide our best estimate of the effects of changing from the current to new questionnaire and collection procedures. Data in the attached tables are 12-month averages for the period January through December 1993. The 1993 annual averages (January-December) will be used for comparison purposes in preparing the January Employment Situation news release and for enhancing public understanding of the effect of the new methodology.

Throughout this document, asterisks denote differences in estimated ratios that are statistically significant at a 10 percent level. No statistical tests of differences were performed for estimated levels. Reported differences may not be exact due to rounding.

### COMPARISON OF PARALLEL SURVEY AND CPS SURVEY DESIGNS

#### Parallel Survey (CATI/CAPI Overlap)

- New questionnaire, using computer-assisted interviewing.
- Began July 1992 after 6-month training and sample phase-in period; July-August 1992 considered shake-down period.

#### CPS (source of official estimates)

- Most data collection is done using a paper instrument.
- A proportion of the data is collected using computer-assisted telephone interviewing (CATI) from two centralized facilities. Converting the current paper questionnaire to a computerized one required some wording and procedural changes. The unemployment rate for the CATI-designated test panel, during the period January 1991 to December 1992, was .8 percentage point higher than for the control panel.

| Design feature                                    | CPS         | Parallel Survey |
|---|-------------|-----------------|
| Monthly sample size<br>(occupied housing units)   | 58,900      | 12,000          |
| 1.6 s.e. on monthly national<br>unemployment rate | .2          | .4              |
| Type of design                                    | state-based | national        |
| Percent of sample sent to CATI                    | 9%          | 20%             |

Computer-assisted interviewing virtually eliminates the possibility of questions being incorrectly skipped or asked in error. Questions are more likely to be asked as worded, so that underlying concepts are more accurately conveyed to respondents.

Table 1

Rates and ratios by demographic groups  
Averages based on January - December 1993

|               | Labor force participation rate |      | Employment-to-population ratio |      | Unemployment rate |      |      |
|---------------|--------------------------------|------|--------------------------------|------|-------------------|------|------|
|               | Parallel Survey                | CPS  | Parallel Survey                | CPS  | Parallel Survey   | CPS  | Diff |
| All workers   | 66.6                           | 66.2 | 61.8                           | 61.7 | 7.3               | 6.8  | 0.5* |
| Adult men     | 76.4                           | 76.9 | 71.4                           | 72.0 | 6.6               | 6.4  | 0.2  |
| Adult women   | 59.5                           | 58.5 | 55.8                           | 55.1 | 6.3               | 5.8  | 0.5* |
| Teenagers     | 54.0                           | 51.6 | 42.9                           | 41.8 | 20.6              | 19.0 | 1.6* |
| White males   | 75.7                           | 76.1 | 70.8                           | 71.4 | 6.5               | 6.2  | 0.2  |
| White females | 59.3                           | 58.0 | 55.7                           | 54.8 | 6.1               | 5.6  | 0.5* |
| Black males   | 67.5                           | 68.5 | 57.5                           | 59.0 | 14.9              | 13.9 | 1.0  |
| Black females | 58.0                           | 57.6 | 50.0                           | 50.6 | 13.7              | 12.1 | 1.7* |

## **REASONS FOR DIFFERENCES IN THE EMPLOYMENT-TO-POPULATION RATIOS BETWEEN THE PARALLEL SURVEY AND CPS**

- The current CPS wording and interviewer tailoring of the initial labor force questions have caused some employed women, teenagers and individuals who are 65 years and older to be misclassified as not in the labor force.
- At the same time, response categories for and wording of the initial labor force question in the current questionnaire may also have led to the inappropriate classification of some individuals as employed, particularly those who perceive that it is socially desirable to be employed.
- The current questionnaire incompletely measures employment in household businesses or farms, since there are only parenthetical interviewer instructions to obtain this information, and no direct questions establish the existence of a business or farm in the household.



## **REASONS FOR HIGHER UNEMPLOYMENT RATE IN PARALLEL SURVEY THAN IN CURRENT CPS**

- Gender bias in the current CPS due to wording and interviewer tailoring of initial labor force questions has caused some unemployed women to be misclassified as not in the labor force.
- Structure and wording of current inquiries about layoff caused some laid-off individuals to be missed and others to be misclassified.
- New wording of the "looking for work" question may result in more individuals classified as being unemployed in the parallel survey.

## EMPLOYMENT AND UNEMPLOYMENT QUESTIONS

### PARALLEL

1. Does anyone in this household have a business or a farm?

2. LAST WEEK, did you do ANY work for (either pay (or profit)?)

Paranetical filled in if there is a business or farm in the household.

If 1 is "yes" and 2 is "no," ask 3.

3. LAST WEEK, did you do any unpaid work in the family business or farm?

If 2 and 3 are both "no," ask 4.

4. LAST WEEK, ( in addition to the business,) did you have a job, either full or part time? Include any job from which you were temporarily absent.

Paranetical filled in if there is a business or farm in the household.

If 4 is "no," ask 5.

5. LAST WEEK, were you on layoff from a job?

If 5 is "yes," ask 6. If 5 is "no," ask 8.

6. Has your employer given you a date to return to work?

If "no," ask 7.

7. Have you been given any indication that you will be recalled to work within the next 6 months?

If "no," ask 8.

8. Have you been doing anything to find work during the last 4 weeks?

If "yes," ask 9.

9. What are all of the things you have done to find work during the last 4 weeks?

Individuals are classified as employed if they say "yes" to questions 2, 3 ( and work 15 hours or more in the reference week or receive profits from the business/farm) or 4.

Individuals who are available to work are classified as unemployed if they say "yes" to 5 and either 6 or 7, or if they say "yes" to 8 and provide a job search method that could have brought them into contact with a potential employer in 9.

### CPS

1. What were you doing most of LAST WEEK -

(working or something else?)

(keeping house or something else?)

(going to school or something else?)

If answer indicates "with a job, but not at work" (either temporarily or on layoff), ask 2, and if 2 is "no" ask 4. If answer indicates "working," skip 2. All others, ask 2.

2. Did you do any work at all LAST WEEK, not counting work around the house? (Note: If farm or business operator in household, ask about unpaid work.)

3. Did you have a job or business from which you were temporarily absent or on layoff LAST WEEK?

If "no," ask 5. If "yes," ask 4.

4. Why were you absent from work LAST WEEK?

5. Have you been looking for work during the past 4 weeks?

If "yes," ask 6.

6. What have you been doing in the last 4 weeks to find work?

Individuals can be classified as "at work" at question 1 or 2. Individuals can be classified "employed, temporarily absent" with the combination of 1 and 4, or 3 and 4.

Individuals who are available to work can be classified as unemployed with combinations of 1 and 4, 3 and 4, 1 and 6, or 5 and 6.

Table 2

Number of discouraged workers  
Averages based on January - December 1993

|                                       | Parallel Survey | CPS   | Difference |
|---------------------------------------|-----------------|-------|------------|
| Discouraged workers<br>(In thousands) | 424             | 1,127 | -703       |



**REASON FOR LOWER LEVEL OF DISCOURAGED WORKERS IN THE  
PARALLEL SURVEY**

Based on the recommendations of the National Commission on Employment and Unemployment Statistics (1979), the measurement of discouraged workers was made more objective by including the requirement that an individual had to have searched for a job in the last year and be available to work in order to be classified as discouraged.

## DISCOURAGED WORKERS QUESTIONS

### Parallel Survey

1. Do you currently want a job, either full or part time?

If "yes" or "maybe," ask 2.

2. What is the main reason you were not looking for work during the LAST 4 WEEKS?

3. Did you look for work at any time during the last 12 months?

If "yes," ask 4.

4. Did you actually WORK at a job or business during the last 12 months?

If "yes," ask 5; otherwise, ask 7.

5. Did you do any of this work during the last 4 weeks?

If "no," ask 6.

6. And since you LEFT that job or business, have you looked for work?

If "yes," ask 7.

7. LAST WEEK, could you have started a job if one had been offered?

If "no," ask 8.

8. Why is that?

To be classified as discouraged, an individual has to want a job, provide a discouraged reason for not looking, have looked in the last year (or since last working), and be available to work (where one's own temporary illness does not disqualify an individual from being available).

### CPS

1. Do you want a regular job now, either full- or part-time?

If "yes," ask 2.

2. What are the reasons you are not looking for work? (Mark each reason mentioned.)

To be classified as discouraged, an individual has to want a job and provide only discouraged reasons for not looking.



Table 3

Part time for economic reasons  
(As a percentage of total employed)

Averages based on January - December 1993

|             | Parallel Survey | CPS  | Difference |
|-------------|-----------------|------|------------|
| Total       | 4.2             | 5.3  | -1.1*      |
| Adult men   | 3.6             | 4.4  | -0.8*      |
| Adult women | 4.5             | 5.7  | -1.2*      |
| Teenagers   | 7.5             | 11.2 | -3.7*      |

Part time for economic reasons  
(Levels in thousands)

Averages based on January- December 1993

|             | Parallel Survey | CPS   | Difference |
|-------------|-----------------|-------|------------|
| Total       | 5,027           | 6,325 | -1,298     |
| Adult men   | 2,226           | 2,720 | -494       |
| Adult women | 2,372           | 2,983 | -611       |
| Teenagers   | 430             | 623   | -193       |



**REASONS PART TIME FOR ECONOMIC REASONS IS LOWER IN PARALLEL SURVEY  
THAN IN CURRENT CPS**

- In the parallel survey, individuals who usually work part time are explicitly asked if they want to work full time and whether they are available to work full time. In the current survey, this information is inferred from the reasons individuals provide for not working full time.

## PART TIME FOR ECONOMIC REASONS QUESTIONS

### Parallel Survey

1. Do you want to work a full-time workweek of 35 hours or more per week?

If "yes," ask 2. If "no," ask 4.

2. Some people work part time because they cannot find full-time work or because business is poor. Others work part time because of family obligations or other personal reasons. What is your MAIN reason for working part time?

If answer is coded as "slack work/business conditions," "could only find part-time work," or "seasonal work," ask 3.

3. LAST WEEK, could you have worked full time if the hours had been offered?

4. What is the main reason you do not want to work full time?

### CPS

1. What is the reason you USUALLY work less than 35 hours a week?

Table 4

Distribution of unemployed by reason

Averages based on January - December 1993

|                           | Parallel Survey | CPS  | Difference |
|---------------------------|-----------------|------|------------|
| Total                     |                 |      |            |
| Lost job                  | 40.8            | 54.3 | -13.5*     |
| On layoff                 | 12.8            | 12.5 | 0.3        |
| Other                     | 28.0            | 41.8 | -13.8*     |
| Completed temporary job   | 10.5            | N.A. |            |
| Left job                  | 9.2             | 10.9 | -1.7*      |
| Reentered labor force     | 32.7            | 24.6 | 8.1*       |
| Newly entered labor force | 6.7             | 10.2 | -3.5*      |



REASONS FOR DIFFERENCES IN THE DISTRIBUTION OF REASONS FOR UNEMPLOYMENT

- The parallel survey includes an explicit question about and provides interviewers with the ability to record individuals who had temporary jobs that ended. In the current survey, interviewers have been instructed to record those who volunteer that their temporary job ended as job losers.
- Estimates of reentrants are greater in the parallel survey because, unlike in the current survey, all previous employment, not just full-time employment, is treated as prior work experience.

## JOBSEEKERS REASONS FOR UNEMPLOYMENT QUESTIONS

### Parallel Survey

1. BEFORE you started looking for work, what were you doing: working, going to school, or something else?

If response is "working," ask 2; otherwise, ask 3.

2. Did you lose or quit that job, or was it a temporary job that ended?

3. When did you last work at (a/that) job or business?

Parentetical filled in depending on if individual said "working" to 1. "Never worked" is an appropriate answer to this question.

### CPS

1. At the time you started looking for work, was it because you lost or quit a job or was there some other reason?

2. When did you last work at a full-time job or business lasting 2 consecutive weeks or more?

Table 5

Duration of unemployment

Averages based on January - December 1993

|  | Parallel Survey | CPS  | Difference |
|--|-----------------|------|------------|
| Duration of unemployment<br>(In weeks) |                 |      |            |
| Mean                                   | 18.7            | 18.1 | 0.6*       |
| Median                                 | 11.0            | 8.0  | 3.0*       |



**REASON FOR LONGER DURATION OF UNEMPLOYMENT IN THE  
PARALLEL SURVEY**

- Important changes were made in the questions and procedures concerning unemployment duration. The effects of these changes are under investigation.

## DURATION OF UNEMPLOYMENT QUESTIONS

### Parallel Survey

Month initially reported as unemployed

1. As of the end of LAST WEEK, how long had you been (looking for work, on layoff)?

The fill in the parenthesis depends on whether the individual is classified as a job seeker or on layoff.

Respondents can report durations in weeks, months, or years. If the respondent reports in months and the duration is 1 to 4 months, ask 2.

2. We would like to have that in weeks, if possible. Exactly how many weeks had you been looking for work?

Individuals who have been unemployed in two or more consecutive months are not asked how long they have been looking or on layoff after the initial month they were reported as unemployed. Rather, their duration is automatically calculated by adding 4 or 5 weeks to their prior month's duration.

### CPS

Every month an individual is unemployed

1. How many weeks have you been looking for work?

2. How many weeks ago did you start looking for work?

3. How many weeks ago were you laid off?

Question 1, 2, or 3 is asked depending on if an individual is a job seeker, waiting for a new job to start in 30 days, or on layoff.

SOME UNKNOWNNS FOR JANUARY 1994  
OR  
PROBLEMS IN PREDICTING WHAT WILL HAPPEN

Estimates of the differences between the old and new questionnaire and data collection procedures based upon 1993 CPS and Parallel Survey annual averages do not necessarily provide a good prediction of the differences we will observe between December 1993 and the early months of 1994. For example, the estimated difference in the unemployment rate for the January through December 1993 period is 0.5 percentage point, but the one-month estimates of difference ranged from 0.1 to 0.7 percentage point. Some additional problems in predicting December-January changes follow.

- In January, the 1500 regular CPS interviewers are using the new instrument and computers on a production basis for the first time.

Although the effects of interviewer conditioning are unknown, efforts were made within budgetary and logistical constraints to limit the effect. For example, the interviewers received extensive training on the new questionnaire and use of the computer during July-September 1993. For field practice, each interviewer conducted personal interviews using a laptop computer in November with 12-16 households which completed their eighth interview before October. In December, interviewers conducted practice interviews with these same households; about two-thirds of these interviews were conducted by telephone. Interviewers also completed a self-study in January just before interviewing week.

- In January, three-quarters of the respondents who received the current set of CPS questions in December are being asked the new set of questions.

The effects of respondent conditioning are uncontrollable and totally unknown. One could hypothesize that all interviews will be essentially first-month interviews. Since first-month interviews tend to have a higher expected value for the unemployment rate than succeeding interviews, January's unemployment rate could be higher than predicted using an average from the 1993 Parallel Survey.

- The seasonal adjustment factors used in January will be based on the seasonal patterns in the current CPS. A minimum of 5 years of data is preferred to estimate seasonal adjustment factors (although it may be possible after 3).
- In January, the composite estimator will not be used. Composite estimation will begin in February using current factors.

Although primarily designed to reduce month-to-month variation in the estimates, one factor in the current composite estimator is selected based on the rotation group bias properties of the current CPS. We suspect that the rotation group bias patterns for the new CPS will be different. Since the discouraged worker questions will no longer be limited to months-in-sample 4 and 8, the expected values of all rotation groups could be affected. As with seasonal adjustment, it takes data from several years to evaluate alternative composite estimators.

## INTRODUCTION OF 1990-BASED POPULATION CONTROLS

Since January 1982, monthly intercensal population estimates have been carried forward based on the 1980 Census of Population. These estimates are used, among other things, as the underlying controls for the Current Population Survey (CPS) and other household surveys conducted by the Bureau of the Census. In the CPS, population controls for some 118 age-sex-race groups serve as "rim totals" for survey weighting.

If we had followed past practices, we would have introduced 1990-census-based controls into CPS estimation in January 1992. However, a new issue came on the scene: Should survey estimates be controlled to population figures adjusted for the estimated population undercount. As a result, intercensal estimates still are being carried forward to the present based on the 1980 census. They are particularly out of line for a number of States and the Hispanic population.

Present planning calls for introduction of 1990-based controls, adjusted for the population undercount, into the CPS in January 1994, concurrent with the initiation of the new questionnaire. This is expected to have an impact on estimates of level, particularly employment, as shown below for April 1990. (Estimated effects for the current months are not yet available.)

|  | <u>1980 based</u> | <u>1990 based</u> | <u>Difference</u> |
|--|-------------------|-------------------|-------------------|
| Civilian noninstitutional population (16+) | 187,669,000       | 188,770,000       | +1,101,000        |
| Civilian labor force                       | 123,924,000       | 124,945,000       | +1,021,000        |
| Employment                                 | 117,436,000       | 118,292,000       | + 856,000         |
| Unemployment                               | 6,488,000         | 6,653,000         | + 165,000         |
| Unemployment rate                          | 5.2               | 5.3               | +0.1              |

As shown, the biggest effect is on the total employed, but unemployment will also rise somewhat, principally because of the increased weight Hispanics will have when the controls are revised. Though we do not know at this time exactly what current differences will look like, prior experiences suggests that differences will increase slightly over the April 1990 date. Thus, we can still expect the overall rate to be a tenth of a percentage point higher, which will add to the expected questionnaire effect of 0.5 point. We do not know the effect on the involuntary part-time or discouraged workers groups at this time. Both will be dropping markedly based on the new questions. Involuntary part time would go down a bit less if the undercount-adjusted data are introduced.