NEW METHODOLOGICAL RESEARCH ON LABOR FORCE MEASUREMENTS

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I. INTRODUCTION

Among the accomplishments of the Gordon Committee has been the stimulation of a sharply expanded research program at the Bureau of the Census devoted to labor force measurement techniques and related survey design problems. Some research has, of course, always been built into the Current Population Survey (CPS) program but its character and intensity have been limited by budgetary considerations and, perhaps even more, by the absence of a separate vehicle for the conduct of field experiments.

Budgetary stringencies were alleviated to some extent by the creation in the Bureau of a special Research Center with funds to support basic and applied research relevant to survey methodology in general. The allocation from this source was supplemented by savings arising from operating efficiencies and from curtailment of some less essential aspects of the CPS program.

These decisions led to the creation of a continuing field experiment--the CPS Methods Test--in three geographic areas in which a variety of explorations have been and are being undertaken. Also of consequence are various investigations of the impact of nonresponse on labor force measurements. In addition, a good deal of research is continuing on sample design, estimation procedures, and related mathematical statistical problems, but these activities are outside of the scope of the present article.

II. CPS METHODS TEST

The CPS Methods Test is a vehicle for studying the accuracy of alternate enumeration procedures or questionnaire formats. It has been in operation continuously for almost two and one-half years in three areas--Boston, Massachusetts; Charlotte, North Carolina; and Marion County, Ohio. The areas were purposively selected to provide a range of urban and rural areas without overburdening any one Census field office.

The design, in brief, calls for 6 interviewers in each of the three areas, each conducting about 24 household interviews a week for 3 weeks of each month--a total of about 1,300 interviews a month for the entire experiment. Each interviewer uses a different procedure in each of the three survey weeks of the month, repeating the same pattern in subsequent months. Assignments have been randomized by interviewer, week of the month, and location within the area to control for as many extraneous elements of difference as possible. Households in the experiment were initially interviewed for four consecutive months. Later, the rotation cycle was reduced to three months to increase the percentage of new households each month and thus provide additional experience on differences in reporting between such households and those that have been previously enumerated.

First Series of Experiments.--The first series of experiments, conducted during the period April 1963-December 1964, related to certain modifications in questionnaire design and content and interviewing procedure. The interviewers in each area were divided into two groups with each group testing two alternative procedures against the standard one used in the Current Population Survey. (It was felt inadvisable to train each interviewer on all the procedures to be tested.) The procedures were as follows:

Group I Interviewers

Procedure No. 1 - Current CPS procedure with the standard questionnaire and independent interviews each month.

Procedure No. 2 - More detailed questionnaire with probing questions on hours worked, duration of unemployment, detection of marginal labor force participation, background information for persons outside the labor force to assist in proper classification of such persons, etc.

Procedure No. 4 - In this approach, the interviewer also used the more detailed questionnaire (Procedure No. 2) as the first step in the interview. However, she also had a summary of the previous month's information which was to be consulted after completion of this first step. Additional questioning was specified to determine whether reported changes in employment status or job attachment from a month earlier had actually occurred or were the result of response variation.

Group II Interviewers

Procedure No. 1 - Same as for Group I Interviewers.

Procedure No. 3 1/ - Advance form covering key items mailed to family with request that it be filled and held for interviewer to pick up. Later changed to request mail return of completed form by certain date (if not forthcoming, telephone or personal follow-up was conducted).

Procedure No. 5 - Essentially the same as Procedure No. 4 above except that the standard CPS questionnaire was used for the first stage of interview rather than the more detailed one.

1/ In July 1964 this procedure was suspended because of rather unfavorable results and Procedure No. 2 was substituted for it to increase the sample size available for that approach.

Results have been tabulated separately for each of the procedures, some for 12-months and others for 18-month periods, and procedures have sometimes been combined in tabulation to increase statistical reliability. For example, the Procedure No. 1 results for both groups of interviewers have been combined for some purposes. Procedures 2 and 4 results have sometimes been merged to study the effects of the more detailed interview, and the same has been done for Procedures 4 and 5 to appraise the effect of access to the previous month's information.

Over-all Findings of the First Series of Experiments.

Perhaps the most interesting finding of this experiment is that, in spite of the sharp differences in approach, there do not appear to be any major differences among the procedures in the distributions of the sample by employment status. The labor force rates and unemployment rates for the experimental procedures are not significantly different from those for the standard procedure (Table 1). 2/ Of course, the sampling errors could conceal differences which, although small, may be important from an analytical standpoint.

Another measure which has not varied significantly among the procedures is the rate of month-to-month gross changes (Table 2). This is defined as the percentage of persons interviewed in each pair of consecutive months who reported a basic change in employment status from one month to the next. 3/ Some theories have held that the volume of "gross changes" is considerably exaggerated as a result of response variability and that a lower level might be indicative of an improved, or at least more consistent procedure, provided that the statistics were otherwise unaffected. However, regardless of the validity of the hypothesis, no important differences emerged among the approaches tested.

Still another evaluation device was a systematic reinterview program, whereby a subsample of the cases assigned to each procedure was interviewed a second time, a week later, by a supervisory person. Comparison of the original and reinterview results, while subject to quite large sampling variation, showed no evidence that any of the experimental procedures produced smaller differences than the standard approach (Table 3).

Improvements evident in detailed questionnaire - While findings have been inconclusive with regard to the basic employment status classifications, some clearcut improvements have been evident in the detailed questionnaire (Procedure 2) in secondary, although still important, items of information. Most striking of these is the case of the information on hours worked. Although the standard CPS questionnaire calls for hours actually worked during the reference week, there have been numerous indications that many persons report their usual workweek and overlook deviations such as time taken off, overtime, or hours on second jobs. The detailed procedure contained systematic questions on these possible deviations from the norm and for correcting the initial responses accordingly. The results (Table 4) show a marked decrease in the 35-40 hours category (the "usual" workweek for most persons) in the sample using the detailed questions, accompanied by a sharp increase in the part-time group and some evidence of a rise among those on overtime. It was also revealed that the deficiency in the measurement of the part-time work force in the standard procedure was primarily among persons who had taken time off for personal or family reasons and not among those on short time because of slack work or other economic factors.

An effort was also made in the detailed procedure to seek improvements in the information on duration of unemployment, which is known to be subject to appreciable response error. The approach used was to record date worked on last previous job as well as the number of consecutive weeks seeking work (the latter being the standard approach) and to have the interviewer reconcile and, if necessary, correct apparent inconsistencies between these items. Because of the miniscule number of cases that might be affected, the experiment gave little evidence of the utility of this revised approach. However, some more recent evidence, on a larger scale, suggest that it might have some merit in improving reporting.

Some probing was also introduced in the item on "class-of-worker", that is, whether the person is an employee, a self-employed worker, or an unpaid worker in a family enterprise. By definition, all workers in an incorporated business--regardless of size and dispersal of stock--should be reported as employees. It has been suspected,

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2/ For an explanation of employment status concepts used in the CPS, see joint publication BLS Report No. 279 - Current Population Reports, Series P-23, No. 13, "Concepts and Methods Used in Household Statistics on Employment and Unemployment from the Current Population Survey," Bureau of Labor Statistics, U.S. Department of Labor - Bureau of the Census, U.S. Department of Commerce, June 1964.

3/ These represent the summation of shifts, in either direction, between an employed and unemployed status, between employed and not in labor force, and between unemployed and not in labor force.

however, that many small entrepreneurs who have incorporated their businesses for various legal or other advantages may continue to report themselves in the CPS as self-employed, as this may still best exemplify their status in their minds. 4/ The detailed form contained a question addressed to those reported as self-employed as to whether their business was incorporated. The results revealed close to 10 percent of the group were operators of incorporated businesses (a fact which was substantiated in large measure by checking against independent lists of corporations). If inflated to national totals this would involve some 750,000 persons, a number which would materially close the gap between employee totals from the CPS and those based on establishment payroll reports.

Besides these various validity checks, the detailed questionnaire contained a number of additional items of information, some of them key Gordon Committee recommendations. First was an inquiry on the specific steps unemployed persons had taken to seek jobs, with virtually all able to report one or more types of activities. Perhaps more significant were the additional questions addressed to persons currently outside the labor force, such as date last worked, description of most recent job and reasons for leaving it, and job seeking intentions in the succeeding year. The experiment established the feasibility of making these inquiries and there seems little doubt that these would be useful analytical aids.

These several improvements evident in the detailed questionnaire were incorporated in the national experimental sample, the Monthly Labor Survey, on which a separate article is being presented. It is most likely that they will eventually find their way into the basic CPS program.

Results of dependent interviewing procedure - Some new findings have been forthcoming from Procedures 4 and 5, which involved a comparison of the responses for the current month with those provided a month earlier and a reconciliation of reported changes in status. One of the objectives of these procedures was to explore the theory that many apparent changes in status were the result of response variation and that this could be reduced by special probing on over-the-month occurrences. Although these types of response variations are generally offsetting, and may have comparatively little effect on the levels of the statistics or on net changes, they could seriously impair the validity of "gross change" data from month to month or over other periods. In fact, publication of gross-change data from the CPS was suspended a number of years ago, and only cautious use has been made of them since for analytical purposes, because of uncertainty concerning their reliability. 5/

Contrary to expectations, the findings from this experiment tended to confirm the validity of the reported changes in status and to ascribe only a small proportion to response variability. Of all reported month-to-month changes in employment status over the period studied, over 85 percent were validated after the substantial probing provided by these procedures. Moreover, of the respondents who after further questioning decided a change had not really occurred, virtually all pointed to the previous month's information as incorrect, which might suggest a deficiency in the reconciliation stage rather than in the original survey data. The results of this single investigation are, of course, insufficient to reach definitive conclusions, but if substantiated in subsequent tests could make available a valuable analytical tool which has largely been kept under wraps.

Self-enumeration procedure - Procedure 3, which involved a version of self-enumeration, showed rather disappointing results for the most part. The initial approach used (starting in the second month in sample) was to mail an advance form to the household, listing the known members, and requesting that the specified labor force information be recorded and held for the interviewer to pick up the following week. The reason for the pick up was partly to permit a review of the entries but mainly to meet the urgent type of time schedule required in the regular monthly survey. Over some 7 months of operation of this procedure, the proportion of eligible respondents who had completed the advance form averaged about 30 percent. The low response apparently was not attributable to objections to the form or the procedure but rather to the pressure of other activities and the usual human tendency to procrastinate.

In an effort to improve response, the procedure was modified to request respondents to mail back the completed forms (in a postage-free envelope, of course) by the end of the reference week. Various other studies had suggested that this approach generally elicits higher response than the earlier version. Where no response was received by the middle of the following week (or where incomplete forms were returned) the interviewer instituted an intensive telephone or personal follow-up to secure the missing information. A favorable finding was that it was possible with this combined approach to complete the workload within the usual timetable for the survey. However, the proportion who returned their forms by mail continued to be low--about 30 percent, on the average--and close to half of these returns were incomplete in one or more important items.

4/ There is, in fact, some thinking that their classification as self-employed would be more meaningful from an analytical standpoint (for example, National Bureau of Economic Research, Forty-Fifth Annual Report, "The Task of Economics," June 1965, page 9.) This problem could be solved in other ways, however, such as by some occasional measures on size of enterprise.

5/ For a discussion of the potential uses and the problems of gross-change data, see paper by Robert B. Pearl, "Gross Changes in the Labor Force: A Problem in Statistical Measurement", Employment and Earnings (U.S. Bureau of Labor Statistics) Vol. 9, No. 10 April 1963.

Partly because of these results, the self-enumeration procedure was discontinued in July 1964 and replaced by one of the other and more promising approaches. Of course, the Bureau conducts numerous other surveys, often quite complicated ones, by mail with generally satisfactory results. The main problem with the current labor force survey is that the timetable is such that there is little or no opportunity to conduct the reminders by mail or other means that contribute so much to the high self-response rates in other programs.

Second Series of Test.--The first series of tests, described above, was terminated in December 1964 pending analysis of the results, and a second series was instituted at that time using the same survey vehicle. In this case, attention was focused on the selection of the respondent for the interview. Under the present system, a single respondent, generally the housewife, reports the labor force information for the entire family. Although this may be desirable from a number of standpoints--certainly in terms of cost, accessibility, and perhaps cooperativeness--questions have been raised about the validity of reporting on certain aspects of the activities of other members, such as hours worked, occupation, and similar items.

For purposes of this second experiment, 6 interviewers again were used in each of the 3 test areas with the same volume of interviews spread over 3 weeks of the month. In this instance, there were only 3 test procedures and each interviewer conducted a different one of the procedures in each of the three survey weeks of the month. The assignment of procedures to different weeks and locations within the areas were randomized, as before, to reduce irrelevant sources of difference. The same questionnaire was specified for all procedures, in this instance the detailed form used in the national experimental Monthly Labor Survey (essentially the detailed Procedure No. 2 form discussed earlier but with revised questions for the unemployed and a somewhat different order of items).

The three procedures (numbered 6,7, and 8 here to avoid confusion with the first series of tests) are the following:

Procedure No. 6 - Essentially the present CPS approach with a single respondent for the household.

Procedure No. 7 - A procedure whereby each person was to be interviewed for himself, insofar as possible. If at home at the time of the interviewer's visit, each such person would be interviewed directly. Those absent at that time were to be contacted later by telephone, if possible, or if not, by return visit. As a last resort, at the conclusion of the enumeration week, the interviewer would accept the information for outstanding cases from the usual household respondent rather than omitting the case entirely.

Procedure 8 - Still another version involving some self-enumeration was attempted in this series of tests. In this case, its objective was to alleviate the anticipated high costs of interviewing each person for himself. In this procedure, an advance form containing only selected items was sent to the household, requesting each person to record the information for himself, and asking someone in the family to hold the completed form for pickup by the interviewer. If the requested items were filled by the time of the interviewer's visit, she was to transcribe the information to the full questionnaire and complete some subsidiary items for all members by interviewing a suitable respondent who was present. If the requested information was not recorded on the advance form, the interviewer was to proceed as in procedure 7, by attempting to interview each adult member for himself.

At this writing, there is insufficient information to report on the results of this second series of tests. In addition to the usual criteria for evaluation, a key factor here will of course be the comparative unit costs for the various procedures.

III. NONINTERVIEW RESEARCH

Research into another type of methodological problem was instituted at about the same time as the Methods Test. This was a study of possible alternative ways of dealing with noninterviews, that is, occupied households that are in the current sample but for whom no information at all is obtained for various reasons, such as inability to find anyone at home during the survey period, refusal to cooperate, and the like. 6/ There are two separate aspects of this subject: (1) can any methods be developed to reduce the number of noninterviews below current levels, and (2) are any improvements possible in the methods now used to adjust for noninterviews.

For the first item above, general plans have been formulated for an experimental study but it has not yet been implemented to any important extent. The present discussion will therefore be restricted to the second item - that is, to methods of adjustment. Time will not permit a detailed analysis of the data, but we would like to sketch out the methods of approach and some of the principle findings. A future paper will describe the project in greater detail.

6/ Cases where a household is interviewed but where some of the information is omitted inadvertently or for other reasons are not classified as noninterviews. This type of omission is relatively minor in the case of the CPS labor force information, rarely exceeding a few tenths of one percent for any given item.

Some background information on the scope and effect of noninterviews in the CPS will be useful in providing a perspective on this subject. Because of the risk of serious biases arising from differences between interviewed and noninterview households, the Bureau has always placed great emphasis on keeping the noninterview rate at a minimum consistent with budget and time considerations. During the past 10 or 15 years, the rate has averaged about 4 to 5 percent, ranging from a seasonal low of 3 to 3½ percent in certain spring and fall months to a high of around 6 percent in the summer when many people are away on vacation. About 1 to 1½ percent, on the average, reflects outright refusals. The remainder are households that the interviewer cannot contact, primarily because the household members are on vacation, temporarily away from home for some other reason, difficult to contact because of peculiar working hours, or rarely home for other reasons.

Because the total level of noninterviews is comparatively low in the CPS, small differences between interviewed and noninterview households could not have any perceptible effect on the statistics; almost any reasonable method of adjustment would be satisfactory under those conditions. It is only if large differences existed that consideration of alternate methods becomes important. An essential part of the study undertaken therefore, was to determine the approximate size of the differences between interviewed and noninterview households with regard to their demographic and labor force characteristics.

The present method of adjusting for noninterviews in the CPS is as follows:

(1) The 357 primary sampling units (PSU's) in the CPS sample are classified into 76 groups as the basis of similarity of population and labor force characteristics.

(2) The noninterview units in each group of PSU's are classified by color of the occupants and by urban, rural farm, and rural nonfarm residence. Each noninterview unit is then given the same characteristics as the average interviewed unit in the same residence-color class within that group of PSU's.

Several alternate methods are being considered as replacements for the current procedure. Among these are:

(1) Use information supplied by the noninterviewed household in the nearest preceding month if that household had ever been interviewed in the CPS program.

(2) Subsample noninterviews as they occur during an assignment period and subject the selected units to more intensive follow-up, still within the assignment period.

(3) Instead of giving the noninterviewed unit the characteristics for an average of all units in the residence-color class, use the average for some sub-group of this population whose characteristics will correlate more closely with the noninterview units.

(4) Compute noninterview adjustments on the basis of the characteristics of the persons in the noninterview households (such as sex-age-color, assuming this information was available from a previous interview) rather than on the basis of household characteristics.

We have attempted to get labor force characteristics of noninterviews in order to study the effect of the different kinds of adjustment procedures. This was done by following up a subsample of noninterviews intensively during the week after they were to be interviewed for CPS. Information was obtained for close to 40 percent of the cases in the subsample. For both the 40 percent and the remaining 60 percent of the sample cases, we determined the interview status during preceding and succeeding months, and obtained labor force data in those months for the cases that were interviewed on one or more such occasions. Tabulations of these two sets of data were then made.

The fact that we were only able to get data for 40 percent of the noninterviews presents a serious qualification on the analysis of the results. We are proposing to eliminate or reduce this qualification by repeating this study, with modifications that may increase the proportion of successful interviews. Mainly, we hope to do this by increasing the length of time for follow-up to several weeks (instead of one week) and by enlarging the staff assigned to the follow-up operations. This study will probably be conducted this fall.

Meanwhile, a number of special tabulations were made of the CPS data to assist in the analysis. The most important one consisted of a separation of the data actually reported by interviewed households from those imputed for the noninterviews. Normally, this process of imputation is performed automatically on computers and only final total labor force figures are available for analysis.

A second series of special tabulations represented a different type of breakdown of the CPS data. Separate figures were made available on the labor force status of persons in households requiring only one visit for a completed interview, those requiring two visits, etc. This was done to test the suggestion that households requiring several visits were more like noninterview households than those requiring only one visit, and

that an improved method of imputation might be to use the characteristics of 2 or 3 visit households rather than all households. 7/

Summary of Findings to Date

As a result of the qualifications mentioned earlier, the findings to date must be considered as tentative. We hope that firmer evidence will become available in the next few months.

Evidence on the following points, however, seem to be emerging.

1. Earlier concerns that the labor force characteristics of noninterview households might differ dramatically from those of interviewed households do not appear to be borne out, with one exception. The exception is the group "with a job, but not at work" (employed persons temporarily absent from their jobs during the reference week) for which the noninterview household rate was about three times that in interviewed households. A large difference of this type would be expected during the summer months, when vacations account for a large part of the noninterviews, but the pattern apparently persists at other times of the year as well.

   The unemployment rate in noninterview households appears to be slightly higher than for interview cases, and there appear to be minor differences in a few of the "not in labor force" categories, such as those "unable to work". However, these differences are small enough so that any reasonable imputation procedures would probably produce satisfactory data for these items.

2. The fairly elaborate adjustment scheme used in CPS does not produce data significantly different from what would result from a simple assumption that noninterview households overall have the same characteristics as interviewed ones; at least this appears to hold for the U.S. as a whole. It is possible that the more elaborate method produces improvements in regional data, statistics for nonwhites, or other subclasses of the population, and a further analysis along this line is being made.

3. There is so far, no support for the hypothesis that as the number of visits required to enumerate a household increases, the household takes on more of the characteristics of noninterviews. The characteristics of households interviewed on 1 visit differ in many respects from those requiring 2 or 3 visits, but the differences are not necessarily in the direction or of the magnitude required to support the hypothesis. It should be noted, however, that data are so far available for only one month. Further information on this subject is planned.

4. Substitution of CPS data as reported by the noninterview household in a neighboring month does appear to provide a modest improvement over the current technique. Virtually every employment class is closer to the "true" figure, although none of the improvements are startling.

7/ See "A Method of Allowing for Not-At-Home Bias in Sample Surveys" by D.J. Bartholomeau, in Applied Statistics, Vol. X, No. 1 March 1961.

TABLE 1 - EMPLOYMENT STATUS OF THE POPULATION 14 YEARS AND OVER, BY SEX, AGE, AND PROCEDURE USED: CPS METHODS TEST, JULY 1963-DECEMBER 1964

(Units in total number of sample observations in period covered)

Employment Status	Test Procedure Used 1/							
	Procedure 1			Procedures 2 and 4				
	Total	Group I Interviewers	Group II Interviewers	Total	Proc.2	Proc. 4	Proc. 3 2/	Proc. 5
Total Population 14 +	16,981	8,387	8,594	16,592	8,335	8,257	5,475	8,305
In Labor Force	9,757	4,814	4,943	9,536	4,743	4,793	3,135	4,819
Percent of total	57.5	57.4	57.5	57.5	56.9	58.0	57.3	58.0
Unemployed	578	287	291	527	272	255	204	282
Percent in Labor Force	5.9	6.0	5.9	5.5	5.7	5.3	6.5	5.9
Total Males	7,834	3,907	3,927	7,600	3,804	3,796	2,588	3,903
In Labor Force	6,120	3,064	3,056	5,990	3,004	2,986	1,997	2,988
Percent of total	78.1	78.4	77.8	78.8	79.0	78.7	77.2	76.6
Total Females	9,147	4,480	4,667	8,992	4,531	4,461	2,887	4,402
In Labor Force	3,637	1,750	1,887	3,546	1,739	1,807	1,138	1,831
Percent of total	39.8	39.1	40.4	39.4	38.4	40.5	39.4	41.6
Total Population 14-19	2,391	1,106	1,285	2,405	1,219	1,186	744	1,244
In Labor Force	869	409	460	907	466	441	260	484
Percent of total	36.3	37.0	35.8	37.7	38.2	37.2	34.9	38.9

NOTE: For an explanation of the procedures, see text, pages 2 & 3. None of the differences between procedures are statistically significant at the 95 percent probability level. Rough orders of magnitudes of the standard errors of the individual procedures are: for labor force rates - 0.8 for the total population, 0.9 for males, 1.1 for females and 2.0 for teenagers; for the unemployment rates, the standard error is about 0.4.

1/ For an explanation of the procedures, see text, pages 2 & 3.

2/ Procedure 3 conducted only during period, April 1963-June 1964.

TABLE 2 - MONTH-TO-MONTH GROSS CHANGES IN EMPLOYMENT STATUS,[1] BY SEX AND PROCEDURE USED: CPS METHODS TEST, APRIL 1963-DECEMBER 1964

(Units in total number of identical sample cases in each pair of consecutive months)

Item	Test Procedure Used [2]									
	Procedure 1			Procedure 2			Procedure 3 [4]	Procedures 4 and 5		
	Total	Group I Interviewers	Group II Interviewers	Total	Group I Interviewers	Group II Interviewers [3]		Total	Proc. 4	Proc. 5
Both Sexes-Total Persons	12,632	6,314	6,318	7,209	6,012	1,197	4,455	11,751	5,682	6,069
Gross changes: Number	883	423	460	584	485	99	356	836	407	429
Percent of total	7.0	6.7	7.3	8.1	8.1	8.3	8.0	7.1	7.2	7.1
Male - Total	5,893	2,975	2,918	3,322	2,770	552	2,134	5,581	2,729	2,852
Gross changes: Number	446	209	237	270	217	53	169	410	214	196
Percent of total	7.6	7.0	8.1	8.1	7.8	9.6	7.9	7.3	7.8	6.9
Female - Total	6,739	3,339	3,400	3,887	3,242	645	2,321	6,170	2,953	3,217
Gross Changes: Number	437	214	223	314	268	46	187	426	193	233
Percent of total	6.5	6.4	6.6	8.1	8.3	7.1	8.1	6.9	6.5	7.2

1/ Gross changes represent a summation of persons who changed in either direction between one month and the next, i.e., between an employed and an unemployed status, between employed and not in labor force, and between unemployed and not in labor force.

2/ For an explanation of the procedures, see text, pages 2 & 3.

3/ During the period July-December 1964, Group II interviewers substituted procedure 2 for the then discontinued procedure 3.

4/ Procedure 3 conducted only during period, April 1963-June 1964.

TABLE 3 - GROSS DIFFERENCES [1/] IN EMPLOYMENT STATUS BETWEEN ORIGINAL INTERVIEW AND REINTERVIEW, BY SEX AND PROCEDURE USED: CPS METHODS TEST, APRIL 1963-MAY 1964

(Units in total number of sample observations in period covered)

Item	Test Procedure Used [2/]							
	Procedure 1			Procedures 2 and 4			Procedure 3	Procedure 5
	Total	Group I Interviewers	Group II Interviewers	Total	Procedure 2	Procedure 4		
Both Sexes-Total Persons	1,856	953	903	1,818	938	880	890	914
Gross differences: Number	67	39	28	96	43	53	43	35
Percent of total	3.6	4.1	3.1	5.3	4.6	6.0	4.8	3.8
Male - Total	878	455	423	851	442	409	434	433
Gross differences: Number	31	17	14	53	24	29	19	20
Percent of total	3.5	3.7	3.3	6.2	5.4	7.1	4.4	4.6
Female - Total	978	498	480	967	496	471	456	481
Gross differences: Number	36	22	14	43	19	24	24	15
Percent of total	3.7	4.4	2.9	4.4	3.8	5.1	5.3	3.1

1/ Gross differences represent all cases in the reinterview subsample for which reported employment status (employed, unemployed, or not in labor force) was different in the reinterview than in the original reinterview. In this test, differences were not reconciled with the respondents so that they would tend to be somewhat exaggerated. The approach used probably tended to favor the standard procedure (No. 1) over the others since the standard questionnaire was used for all reinterviews. This was changed later in the test periods but further results are not yet available.

2/ For an explanation of the procedures, see text, pages 2 & 3.

TABLE 4 - DISTRIBUTION OF PERSONS AT WORK, BY NUMBER OF HOURS WORKED IN REFERENCE WEEK AND BY PROCEDURE USED: CPS METHODS TEST, JULY 1963-DECEMBER 1964

(Units in total number of sample observations in period covered)

Hours Worked	Test Procedure Used 1/							
	Procedure 1			Procedures 2 and 4				
	Total	Group I Interviewers	Group II Interviewers	Total	Procedure 2	Procedure 4	Procedure 3 2/	Procedure 5
Total at Work	8,479	4,148	4,331	8,268	4,161	4,107	2,699	4,209
Part Time (1-34 hours)	1,829	920	909	2,089	1,105	984	544	975
For economic reasons	288	140	148	354	205	149	84	169
For other reasons	1,541	780	761	1,735	900	835	460	800
Full Time (35-40 hours)	3,943	1,888	2,055	3,462	1,692	1,770	1,322	1,893
Overtime (41 hours or more)	2,707	1,340	1,367	2,717	1,364	1,353	833	1,341
Percent Distribution								
Total at Work	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Part Time (1-34 hours)	21.6	22.2	21.0	25.3	26.5	23.9	20.1	23.1
For economic reasons	3.4	3.4	3.4	4.3	4.9	3.6	3.1	4.0
For other reasons	18.2	18.8	17.6	21.0	21.6	20.3	17.0	19.1
Full Time (35-40 hours)	46.5	45.5	47.4	41.9	40.7	43.1	49.0	45.0
Overtime (41 hours or more)	31.9	32.3	31.6	32.8	32.8	33.0	30.9	31.9

1/ For an explanation of the procedures, see text, pages 2 & 3.
2/ Procedure 3 was terminated in June, 1964.

TABLE 5 - PERCENTAGE DISTRIBUTION OF EMPLOYMENT STATUS OF PERSONS 14 YEARS AND OVER, AS REPORTED IN CPS AND FOR VARIOUS CLASSES OF NONINTERVIEW HOUSEHOLDS

(Most data represent monthly averages for Feb.-June 1963. See footnotes for variations from this period.)

Employment Status	Total Pop. as tabulated in CPS	Interviewed households as tabulated in CPS 1/	Data for Noninterview Households			Data for interview households, by number of visits required to obtain interview 4/				
			As Computed in CPS 1/	Interviewed in following week 2/	CPS Data for households in CPS in neighboring month 3/	Total	1-visit	2-visits	3 or more visits	Telephone int. and n.a.
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In labor force	56.3	56.6	56.1	57.5	58.2	57.4	56.2	60.3	60.7	57.8
Employed	52.9	53.1	52.6	53.4	54.4	54.6	53.3	57.3	57.9	55.5
Working full time	40.0	40.2	40.0	37.5	50.8	39.8	38.6	41.9	42.2	41.1
Working part time	10.6	10.6	10.2	9.2		9.1	9.2	9.7	9.0	8.3
With a job, not at work	2.2	2.3	2.3	6.6	3.6	5.6	5.4	5.8	6.7	6.1
Unemployed	3.5	3.4	3.5	4.1	3.8	2.9	3.0	3.1	2.8	2.3
Not in labor force	43.7	43.4	43.9	42.5	41.8	42.6	43.8	39.7	39.3	42.2
Keeping house	26.8	26.8	27.5	25.9	26.5	27.2	28.0	25.2	25.2	26.6
In school	8.3	7.9	7.8	7.2	6.2	0.7	0.7	0.8	0.7	0.7
Unable to work	1.4	1.4	1.4	0.7	1.0	1.3	1.4	1.0	1.0	1.2
Other	7.1	7.3	7.2	8.7	8.1	13.4	13.7	12.7	12.4	13.7

1/ Data cover the period March-June 1963. Based on weighted CPS data but using a simpler estimation method than in CPS (age-sex-color ratio estimates and composite estimates have been omitted.)

2/ Represents unweighted tallies of the 40 percent of the Feb.-June noninterviews that were interviewed in the week following the regular CPS enumeration period.

3/ Represents unweighted tallies of about 60 percent of the Feb.-June noninterviews that were included in CPS in either the month prior to or immediately following the month of noninterview.

4/ Data are for period Aug. 1964. Based on unweighted tallies of the entire CPS for that month. The high percentages shown for "with a job, not at work" reflected persons on vacation that month. Similarly the low figures for "in school" reflect the season, as do the high proportion for "other"-not in labor force, a group which includes school children on summer vacation. The level of these items cannot therefore be compared with the level during other months of the year.