

TECHNIQUE OF TABULATION AND PROCEDURES

Introduction.—Presented in this chapter is an outline of the procedures followed in the 1940 Census of Agriculture. In it are described the schedule and its preparation, the method of canvass, and the procedures followed in assembling the data for publication. The mechanics of assembling the data is illustrated through facsimiles of the schedule, punch cards, machine-tabulation sheets, or "result slips," work sheets, table forms, completed tables, and the like.

For the most part, these facsimiles of forms indicate their tie-in with one another, thus making possible the tracing of the reports of items for individual farms to their inclusion in the published totals. The text is limited largely to an explanation of these forms.

Only those tabulations which were undertaken as a part of the regular census are described. Special tabulations made for, or in cooperation with, other Government agencies or for individuals are not shown. Mention of some of these is made in another chapter.

For Plantations, for the Irrigation and Drainage Censuses, and for the Agricultural Censuses for territories and possessions of the United States, only facsimiles of the schedules and punch cards are shown. For these censuses the plans of tabulation were similar to those used for tabulating the data secured on the Farm and Ranch Schedule and, because of the space which would be required, the result slips, table forms, etc., are omitted.

FARM AND RANCH SCHEDULE

Preparation of 1940 Farm and Ranch Schedule.—The Director of the Census, under the Act authorizing the 1930 and subsequent censuses of agriculture, has legal authorization to determine, with the approval of the Secretary of Commerce, the number, form, and subdivisions of inquiries on the schedules. In preparing the 1940 schedule, he not only had the aid of members of his permanent staff, but he also sought the advice and constructive criticism of experts outside his own organization. Of these, special mention should be made of the General Census Advisory Committee consisting of six members appointed from the membership of the American Statistical Association by the Board of Directors and a Special Census Advisory Committee for the 1940 Census of Agriculture designated by the Honorable Daniel C. Roper, then Secretary of Commerce. Members of the Census Advisory Committee were:

<u>Member</u>	<u>Affiliation</u>
Prof. Robert E. Chaddock, Chairman	Columbia University
Dr. Murray R. Benedict	University of California
Mr. Paul T. Cherington	McKinsey and Company
Dr. J. Frederick Dewhurst	Twentieth Century Fund
Dr. William E. Ogburn	University of Chicago
Mr. Willard L. Thorp	Associated Gas and Electric Corporation

Members of the Special Census Advisory Committee for the 1940 Census of Agriculture and their affiliations were:

<u>Member</u>	<u>Representing</u>
Dr. S. H. DeVault (Chairman), Head, Department of Agricultural Economics, University of Maryland.	American Farm Economic Association
Mr. W. F. Callander, Chairman, Crop Reporting Board, Bureau of Agricultural Economics, U. S. Department of Agriculture.	U. S. Department of Agriculture
Mr. W. R. Ogg, Director of Research, American Farm Bureau Federation.	American Farm Bureau Federation
Mr. Fred Brenckman, Washington Representative, The National Grange.	The National Grange
Mr. Harold F. E. Jeunet, Farm Journal.	Agricultural Publishers Association
Mr. H. G. Keeney, Vice-President, National Farmers' Union.	Farmers' Educational and Cooperative Union of America
Mr. Ole A. Negaard, Special Consultant Central Statistical Board.	Central Statistical Board

The Chairman of the latter committee and members located in Washington met frequently and, with the assistance of representatives of the United States Department of Agriculture and

of the Bureau of the Census, did much of the spade work in preparing and arranging the questions. The full committee met from time to time to pass judgment on what had been done and to offer suggestions for improvements.

For several years prior to the enumeration, the Bureau of the Census had catalogued all suggestions and criticisms received concerning the nature and form of inquiries and the general make-up of the schedule. These suggestions, most of which had come in voluntarily, were given careful consideration by the committee. Both the full committee and subcommittees made themselves available to all individuals desiring to make personal appearances in support of any inquiries in which they were interested.

In addition to suggestions and criticisms which had been received by the Census Bureau, the committee also had the benefit of the experience of the Bureau gained from previous censuses. Of particular importance in guiding them in the selection, preparation, and arrangement of the questions were the results of a trial census of agriculture taken in 1938. The schedule used for this trial census was prepared by a special advisory committee made up of representatives of the Department of Agriculture, the Central Statistical Board, and the Bureau of the Census. This trial schedule provided a means of testing some of the improvements suggested as well as some of the new inquiries which had been proposed. The enumeration was done by State statisticians of the Department of Agriculture. The statisticians made written reports on all items of interest connected with the enumeration. Included in these reports were comments on the wording and arrangement of the questions, the time required for filling out a schedule, the reaction of the farmers to certain questions, the relative accuracy of replies obtained, and pertinent facts relating to enumeration problems. These comments were very helpful in preparing the 1940 questionnaire.

The number of inquiries considered exceeded by far the physical limitations of a schedule. After careful consideration 232 numbered inquiries, or questions, were decided upon. These included a number of "catch-all" questions providing for the reporting separately of miscellaneous kinds of poultry, and of miscellaneous crops for which reports would be too infrequent to justify separate inquiries on the schedule. One such "catch-all" question was placed at the end of each of the blocks relating to general crops, vegetables harvested for sale, small fruits, orchard fruits, nuts, and citrus fruits. Several unnumbered questions were also included on the schedule under a section entitled "Supplemental Information." These unnumbered questions were designed primarily to assist in appraising or explaining the information reported under the numbered questions. This portion of the schedule included questions on summer fallow, soil-improvement crops, crop failure, and double cropping and provided space for giving any changes in the area of the farm or tenure of the operator and for clarifying any unusual entries in the report.

In order to permit the use of this large number of questions, and to lighten, insofar as possible, the task of both the farmer and enumerator, the schedule was regionalized. Separate inquiries for crops not grown or grown infrequently in a region were omitted on the schedule for that region. Thus, although there was a total of 232 numbered inquiries, the maximum number used on any one schedule was 188.

Provision was made on the schedule for the precoding of several items, as color and race of farm operator, source of electric current, and kind of road adjoining farm. For color and race of operator, six blocks were provided, each block being given a code number, the first digit of which indicated color, that is, white or nonwhite, and the second digit, race. Similarly, for the source of electric current, two blocks were provided and for kind of road, four blocks were provided. The enumerator was instructed to check the blocks which were applicable.

The final draft of the Farm and Ranch Schedule prepared by the Special Census Advisory Committee for the Census of Agriculture was referred to the General Census Advisory Committee for further study. Only a few relatively minor changes were necessitated by the recommendations of the General Committee. In all, seven drafts of the schedule had been prepared and carefully considered before a copy was sent for printing. This does not include numerous drafts of various portions of the schedule.