

EVALUATION OF THE COMPLETENESS OF THE CENSUS

Generally, reliable data to indicate the completeness of the Census of Agriculture are not available from other sources. Programs for providing measures of the completeness of the Census were a part of the 1950 and 1954 Censuses of Agriculture. These programs required the making of a special survey to provide estimates regarding the completeness of the counting of the number of farms, and the acres of land in farms, cropland harvested, corn, wheat, and cotton.

For 1954, two samples were used for this special survey. The first sample comprised 772 small geographic areas or segments in rural areas in 319 counties. These small areas usually contained 4 or 5 farms each and the total number of farms for all these areas was 2,800. The location of the 319 counties containing these small areas is indicated by figure 49.

The sample of segments was selected by grouping the counties in the United States in 200 groups so that each group had slightly less than 30,000 farms according to the 1950 Census of Agriculture. For each of these groups, a sample of counties was selected with probabilities proportionate to the number of farms in 1950. In the part of the 200 groups of counties, where the acreage of wheat and cotton was important, the selected sample was spread among about 50 additional counties in order to reduce variability of the sample for the acreage of wheat and cotton. Within the counties selected for the sample, a sample of segments, each comprising 3 to 5 farms, was selected so that the sample would be self-weighting at the proportion of 1 in 1,500.

The second sample was obtained after the completion of the enumeration by drawing the boundaries of the 772 segments on the enumerator's maps and making a list by the use of the Form A2 of all places which the Census enumerator indicated as located within the segment area. This list sample, covered to a large extent, the same places and farms as the 772 segment sample.

This list sample was supplemented by taking a sample of 1 out of 950 farms of 1,000 to 9,999 acres (this resulted in a sample of 120 farms) and a sample of 1 in 20 of all farms of 10,000 acres or more (this resulted in a sample of 365 farms).

The evaluation program called for the re-enumeration of all places in the 772 segments and all places listed in the list sample. A group of 60 specially selected and trained enumerators were used for this re-enumeration. They were given 40 hours of training and were provided with detailed questionnaires for recording the information. Aerial photographs or other detailed maps were given them for the 772 segments. The enumerators were required to indicate on the aerial photograph (see fig. 50 for an illustrative example) or on special maps, the location, and boundaries of every field within the segment. Detailed information regarding the area and agricultural use of each field was obtained. Enumerators were required to account for the area of the segment. Enumerators were instructed to fill Agriculture Questionnaires for any place or farm found in the segment and not included in the list sample. For places and farms in the list sample, and not located within the 772 segments, enumerators were instructed to obtain detailed information regarding the area comprising the farm and its agricultural use.

After the completion of the reenumeration the reports of the special enumerators were checked against the Agriculture Questionnaires filled by the Census enumerators by Central Operations Office personnel. In all cases, when there were significant differences between the two reports, another special enumerator was sent to check and obtain a report for the reasons for the differences.

Estimates on farms missed in the Census were obtained on the basis of detailed records and maps of all places located within the 772 segments. Estimates on the coverage of land in farms, and the acreage of cropland harvested, wheat, corn, and cotton harvested were based on the detailed data for farms included in the list sample, and located outside the segment as well as on the detailed data for farms in the 772 segments.

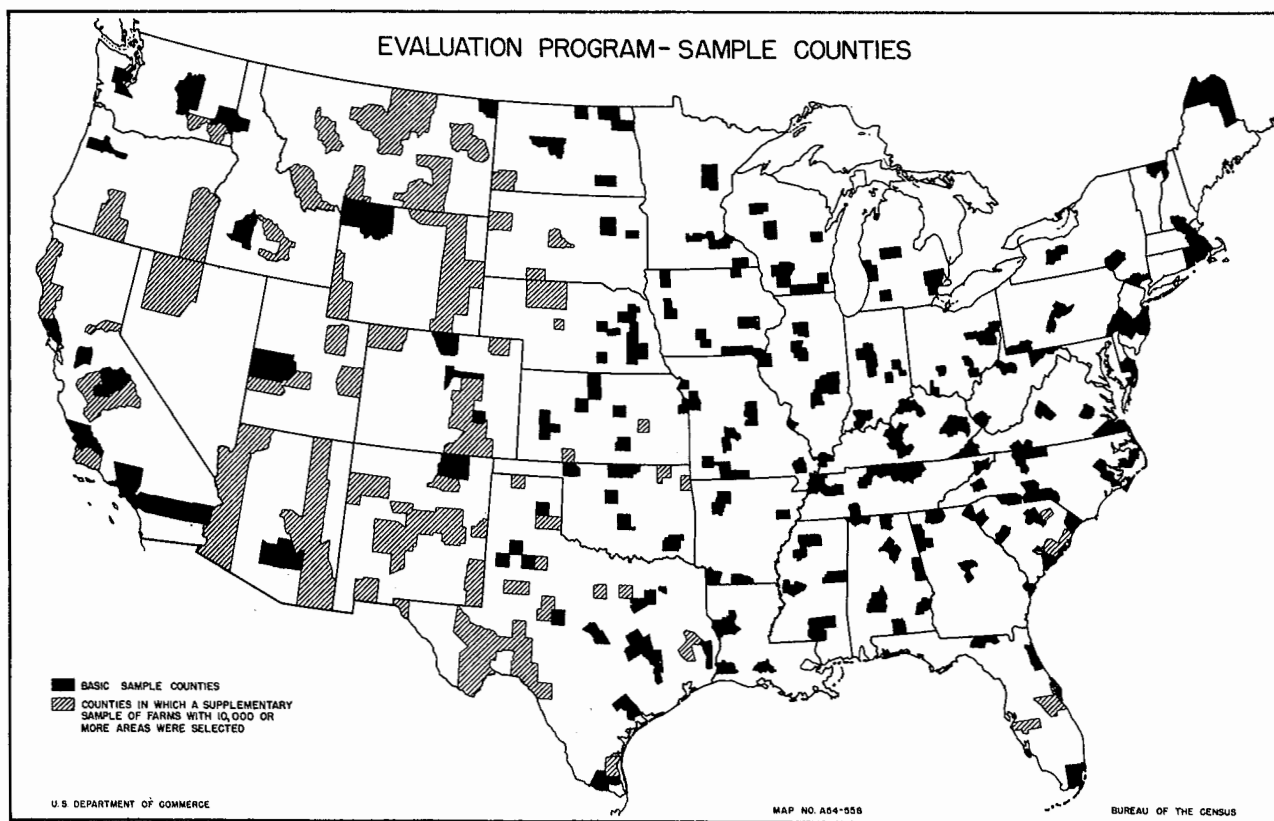


FIGURE 49.—Evaluation program—Location 319 counties comprising sample used in evaluating completeness of enumeration.