

Appendix III

Farms With Sales of Less than \$2,500 in the 1978 Census of Agriculture

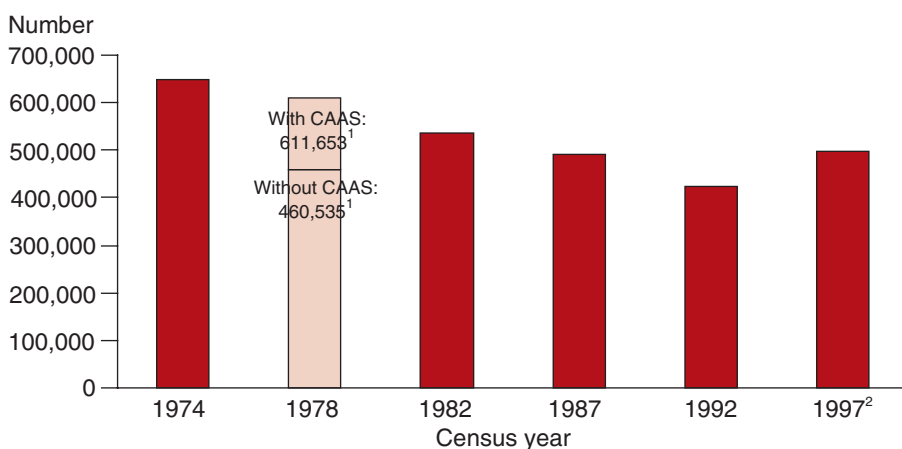
According to evaluation studies conducted after each census, the five censuses from 1978 through 1997 covered an average of 92 percent of all farms and 98 percent of production (USDA, NASS, 1999, p. C-5). However, farms with sales near the \$1,000 cutoff in the U.S. farm definition were more likely to be undercounted. In the 1997 Census of Agriculture, for example, approximately 29 percent of farms with sales of less than \$2,500 were not included in the count compared with 12 percent of farms with sales of \$2,500-\$9,999 and 4 percent of farms with sales greater than \$10,000. The same pattern of undercounting the smallest farms also prevailed in earlier agricultural censuses.

The 1978 Census was an exception (U.S. Department of Commerce, U.S. Census Bureau, 1985, p. VI). After substantial undercounts of low-sales farms (sales of less than \$2,500) in the 1969 and 1974 Censuses, the 1978 Census was augmented by the Census of Agriculture Area Sample (CAAS). Using the supplemental survey lowered the undercount of low-sales farms to about 7 percent. Combining the regular 1978 mailed census with the CAAS results in a count of 612,000 low-sales farms, which fits the 1974-92 trend in farms of that sales class (app. fig. 1).

Appendix figure 1

Farms with sales of less than \$2,500, 1974-97

The number of farms in 1978 with sales of less than \$2,500 is smaller without the supplemental Census of Agriculture Area Sample



Note: Sales are measured in current dollars, not constant, dollars.

¹Census of Agriculture Area Sample (CAAS).

²The increase in farms with sales of less than \$2,500 between 1992 and 1997 is largely due to a change in the classification of farms with all their cropland in the Conservation Reserve or Wetlands Reserve Programs (CRP or WRP). CRP/WRP farms were added to the farm count for the first time in 1997. For more information, see Hoppe and Korb, 2002.

Source: Compiled by ERS from census of agriculture data.

The CAAS sample was included in the 1978 Census publications, at least for U.S., State, and regional estimates. The sample was not large enough to provide estimates at the county level, however. In publications based on later censuses, the 1978 data included for comparisons were based on estimates made without the CAAS. Excluding the CAAS makes the 1978 estimates more comparable with estimates for later years, which have no supplemental survey (U.S. Department of Commerce, U.S. Census Bureau, 1984, pp. V and B1). The 1997 longitudinal file also excludes observations from the CAAS because it is a county-level file.

Although the CAAS-augmented 1978 Census provided an accurate estimate of the number of low-sales farms, the 1978 Census without the supplement did not, which is apparent when examining the number of low-sales farms over time. When we used the 1978 estimate without the CAAS, the count of low-sales farms fell by 189,000 between 1974 and 1978 and then rebounded by 76,000 between 1978 and 1982. This erratic change in farm numbers is difficult to accept as having actually happened. The unaugmented 1978 Census more likely undercounted farms with sales of less \$2,500.

Missing a large share of low-sales farms in 1978 also appears to have greatly reduced the exit probability for farms with sales of less than \$1,000 during the 1978-82 intercensus period. For a given age group, the exit probability for farms with sales of less than \$1,000 is 15-20 percentage points lower in the 1978-82 period than in later periods. Farms with sales of less than \$1,000 that the 1978 Census did locate may have been more established than the ones that were missed and thus more likely to survive until the 1982 Census. Unfortunately, the limited 1978 Census data now available—more than two decades after their release—prevent more definitive investigation.